ORIGINAL NEW APPLICATION

0000127663

BEFORE THE ARIZONA CORPORATION

COMMISSIONERS
GARY PIERCE, Chairman
BOB STUMP
SANDRA D. KENNEDY
PAUL NEWMAN
BRENDA BURNS

Arizona Corporation Commission
DOCKETED
JUL - 1 2011
DOCKETED BY

RECEIVED
2011 JUL -1 P 3:35
AZ CORP COMMISSION
DOCKET CONTROL

E-01345A-11-0264

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR APPROVAL OF ITS 2012 RENEWABLE ENERGY STANDARD IMPLEMENTATION PLAN AND REQUEST FOR RESET OF RENEWABLE ENERGY ADJUSTOR	DOCKET NO. E-01345A-11-____ **APPLICATION**

Arizona Public Service Company ("APS" or "Company") makes this filing in compliance with the Arizona Corporation Commission's ("Commission") Renewable Energy Standard ("RES") Rules.[1] APS submits its 2012 Implementation Plan ("2012 Plan");[2] Renewable Energy Standard Adjustment Schedules (which have been updated to reflect the costs of the 2012 Plan); a Renewable Energy Standard Plan of Administration; Schools and Government Solar Program Rate Rider Schedule; and an updated Service Schedule 6 (which addresses interconnection study services and fees) for Commission approval. In the 2012 Plan, APS is presenting three different options for specific programs and budgets for the Commission's consideration, and the ultimate budget will depend on the Commission's final decision. The 2012 plan includes approximately $109.2 million in on-going contract and non-energy commitments. The three proposed budget options include these on-going commitments, as well as varying levels of program expansion, resulting in total budgets that range from $129.2 million to $151.5 million. This would result in an increase in the range of $1.38 per month to $2.36 per month to the current residential RES surcharge cap.

[1] A.A.C. R14-2-1801, *et seq.*
[2] As required by A.A.C. R14-2-1813.

APS's 2012 Plan, which includes a detailed discussion of the Company's proposed programs, as well as the 2012 RES budget options, is attached as Exhibit A.[3] As requested by Decision No. 72022, the RES Summary and PowerPoint presentation of the Implementation Plan are attached as Exhibits B and C. An electronic copy of the workpapers and PowerPoint presentation supporting this filing will be provided to Staff.

OVERVIEW OF 2012 PLAN

The 2012 Plan, which covers the five-year period from 2012 through 2016, addresses the implementation strategy APS will employ to achieve and exceed compliance with the 2012 RES requirements. In 2012, APS must acquire 3.5 percent of its total retail energy sales from renewable energy resources and 30 percent of the renewable energy requirement must be from distributed energy ("DE") applications.[4] With the successful performance of its on-going programs, APS expects to exceed RES compliance in all categories for 2012.

In addition to the RES requirements, the APS 2012 Plan must address the requirements of Decision No. 71448,[5] which adopted the 2009 Settlement Agreement. In that Decision, the Commission required the Company to make its best efforts to acquire new renewable energy resources with annual generation or savings of 1,700,000 megawatt hours by December 31, 2015.[6] This obligation effectively doubles the requirements under the RES Rules for the same period.

To assure that sufficient capacity is online in the required timeframe, the Company must continue procurement activities already underway and commence new procurement activities, as articulated in this 2012 Plan. Some of these new procurement activities have 2012 budget implications for which APS is requesting specific budget approvals. Other procurement activities will impact budgets beyond 2012, but APS must commence related procurement activity soon after approval of the 2012 Plan in order to have the time to carry

---

[3] Because the 2012 Plan contains some competitively confidential information, certain information has been redacted in the version filed in Docket Control. The competitively confidential information will be provided to Commission Staff upon execution of a protective agreement.

[4] A.A.C. R14-2-1804(B), 1805(B).

[5] Issued December 30, 2009 (Docket No. E-01345A-08-0172).

[6] *See id.*, Exhibit A, p. 31 (Section 15.1).

out the programs in the most cost-effective manner possible. For that reason, APS is seeking Commission approval for specific elements of its renewable energy plans beyond 2012, so that the Company can take the necessary steps to build for Arizona's clean energy future.

Based on the Company's current in-service and contracted renewable generation resources, APS projects that it will need to acquire an additional 502,500 megawatt hours or approximately 300 megawatts by December 31, 2015. To assure diversification within its renewable generation portfolio, APS is planning to meet its obligations through two procurement methods: 1) additional customer and/or third-party owned systems; and 2) more utility-owned projects, including additions to the AZ Sun Program and the Schools and Government Program. The Company plans to procure 150 megawatts through each of these procurement methods to achieve the 2009 Settlement Agreement obligations.

2012-2016 RES PROGRAM OPTIONS

APS's 2012 Plan differs from previously filed Implementation Plans because rather than proposing a single approach, the Company is proposing multiple program options for the Commission to consider in making its policy decision on the proper balance between budget and resources development. The proposed options were developed to: 1) achieve compliance with the 2012 RES requirements; 2) achieve compliance with the obligations set forth in the Company's 2009 Settlement Agreement; and 3) provide the Commission with options regarding the type and scale of programs APS could develop during this planning period. Only some of these decisions will impact budgets in 2012; however, Commission approval of specific elements of the longer term plan is necessary so that APS can commence the competitive procurement process with certainty.

APS is proposing options for three key elements of its overall RES program, including:

- Third-party financed renewable generation resources (Purchased Power Agreements or "PPAs");
- Annual non-residential distributed energy incentive budgets and resulting capacity; and
- Annual residential distributed energy incentive budgets and resulting capacity.

For each of the above-listed categories, APS is proposing three distinct energy and/or budget options. Each option will allow APS to meet or exceed its DE and overall RES requirements in each year, as well as meet the Company's obligations under the 2009 Settlement Agreement. Option 1 represents the minimal amount of energy needed to meet RES targets and the 2009 Settlement Agreement obligations. Option 2 represents an approach that falls between Options 1 and 3, and seeks to balance a commitment to meet or exceed annual RES targets with moderation of budgets and capacity based on existing program performance. Option 3 reflects the Commission-ordered DE budget requirement, which allows for the continued expansion of DE resources. Each of the proposed options anticipates additional capacity resulting from PPAs to be operational in 2015. There are no 2012 budgetary impacts for the new PPA procurements that will be solicited in 2012. A summary of the options is provided below and each is discussed in greater detail in Exhibit A.

a. Option 1:

Under this option, APS would solicit and commission 150 megawatts through PPAs in the period of 2012 through 2015. Because APS expects to be in compliance with the 2012 non-residential DE requirements with existing projects and approved lifetime authorization, this option does not include a budget for additional non-residential DE projects and includes only the amount of energy needed to meet the residential DE requirements in 2012. This option would include a residential DE budget of $20 million, which would add approximately 17 megawatts of new capacity in 2012. The total 2012 RES costs under Option 1, including existing commitments, would be $129.2 million.

b. Option 2:

Under this option, APS would solicit and commission 125 megawatts through PPAs in the period of 2012 through 2015, and continue the non-residential DE program with a 25 megawatt expansion between 2012 and 2014. Due to the substantial number of large projects that are coming online in 2011 that will place APS beyond compliance with the non-residential DE requirements, in this option the Company would eliminate funding for large projects, and allocate $2 million for the small, non-residential projects that would receive up-

front incentives.[7] The remaining $100,000 budget in 2012 would be reserved for medium projects, representing a total lifetime commitment of $10 million in each year between 2012 and 2014. This addition brings the total Production Based Incentive ("PBI") lifetime commitment to $700 million (for 2012 and previous years). APS anticipates that this budget would result in approximately 25 megawatts of additional capacity in the period between 2012 and 2014. Under this option, approximately $30 million would be allocated to the residential DE program, which would yield approximately 26 megawatts of new capacity in 2012. The total 2012 RES costs under Option 2 would be $141.2 million.

c. ***Option 3:***

Under Option 3, APS would solicit and obtain 100 megawatts through PPAs in the period of 2012 through 2015, and expand the non-residential DE program by 50 megawatts during the period between 2012 and 2014. Option 3 assumes that $2 million is budgeted for small, non-residential projects that would receive up-front incentives. The remaining $300,000 budget in 2012 is reserved for large and medium projects, representing a total lifetime commitment of $20 million in each year between 2012 and 2014, resulting in a total lifetime commitment for PBIs of $730 million (for 2012 and previous years). APS expects that this budget would result in approximately 50 megawatts from medium and large projects over the same time period. The residential DE incentives would be allocated at $40 million in 2012, as proposed in Decision No. 72022, which would result in approximately 34 megawatts of PV-equivalent capacity. The total 2012 RES costs under Option 3 would be $151.5 million.

The following table depicts the key components of the proposed options.

[7] Large projects are those projects where the generator or inverter is rated at more than 200 kilowatts and less than 2 megawatts. Medium projects are those projects where the generator or inverter is rated at 30 to 200 kilowatts. *See* Decision No. 72022 (Dec. 10, 2010) at 12-13. Small projects are less than 30 kilowatts or where less than $50,000 in incentives is paid.

2012 Program Options

Third-Party PPAs for Renewable Generation	Emphasis on utility-scale, central station renewable generation *150 megawatts*	Moderated amount of renewable generation, allowing for some non-residential incentive program capacity *125 megawatts*	Less renewable generation capacity to support DE emphasis *100 megawatts*
New Non-residential Distributed Energy Incentives	Existing commitments achieve compliance, no incentives offered *0 megawatts*	Limit incentives to small and medium projects *25 megawatts*	Continue incentives for all project size categories *50 megawatts*
Residential Distributed Energy Incentives	$20M budget Achieve annual compliance requirement only *Adds 17 megawatts*	$30M budget Exceed annual compliance in 2012, maintain margin through 2016 *Adds 26 megawatts*	$40M budget in 2012, reduced by $5M annually to 2016 *Adds 34 megawatts*

RESIDENTIAL INCENTIVE FUNDING

Under all the options described above, consistent with Decision Nos. 72022 and 72174, APS is proposing to continue the current residential PV grid-tied incentive methodology. These incentives would begin at $1.30/watt, and would continue with market-driven triggers for future incentive decreases. To remain consistent with the incentive adjustments for renewable technologies, APS is proposing to decrease the incentive for its residential geothermal from $0.90/kilowatt hour to $0.80/kilowatt hour. APS believes that the incentive thresholds and approved method for ongoing incentive reductions have proven to be effective in meeting the residential DE requirement and supporting the increased levels of customer participation in the program throughout the year.

APS's proposal allocates $3 million for the Rapid Reservation Program, which allows APS to immediately confirm PV applications that request incentives of $1.00 per watt or less. It also provides a 15 percent allocation for non-PV technologies, and $2.6 million for the Energy Star® plus Solar Homes Program incentives to encourage the increased penetration of solar and energy efficiency adoption within the homebuilder market. These allocations are the same for all three options. Taking into consideration these specific allocations, the

remaining residential PV incentives would be distributed evenly among the four funding quarters. Details regarding the funding quarters and incentive reduction triggers are discussed in Exhibit A.

DE PROGRAM ENHANCEMENTS

There has been increased demand in the last few years for customer-site renewable systems. The market has provided innovative new models, including leased residential solar systems. New models, such as leases, provide a valuable option for customers and introduce a variety of complexities into program administration. Issues include timely identification of system ownership, uniquely tailored program processes and documentation, and accommodations within APS's on-line incentive management application.

Further, as distributed energy is better understood by market participants, regulators, and lending institutions, adaptations to some programs are required. For example, beginning in October 2010, APS was required to issue Internal Revenue Service Form 1099 to residential customers who had acquired DE systems using APS incentives. This change required numerous process and administrative changes. Recently, homebuilders providing DE systems in new homes have begun recording leases, and APS's program requires that any future homeowner purchasing a home that has a renewable system that received RES incentives be fully informed of the obligations of system ownership. To address the myriad of emerging issues, APS is proposing the following enhancements to its DE programs.

a. Monitoring Meters:

APS recognizes that as the magnitude of distributed energy systems grows, there is a greater need to monitor the output of those systems to assure that renewable energy production corresponds with the incentives paid to customers. Currently, APS installs a production meter on all non-residential PV systems participating in its PBI program and on APS-owned systems. To more closely monitor the output from all PV systems installed in APS's service territory, APS is proposing to install production meters for small non-residential and residential PV systems that receive upfront incentives. These production meters are in addition to the bi-directional meter used for customer billing. The meters will

be installed on the PV production side of the customer panel to record and validate the customer's PV production level.

The data from these meters will allow APS to monitor actual production and improve operations of the overall electrical system. APS intends to monitor the systems to determine that appropriate production continues, including after the sale of a property.

APS plans to install the meters on previously installed systems, as well as those coming online in the future, and estimates that 7,200 meters would be installed in 2012. System improvements will be necessary to integrate the tracking and workflow management of the non-billing meters into the existing data bases and systems, and additional resources will be required to install meters and provide field services. APS has budgeted approximately $600,000 in 2012. The Company is proposing to use the same model as its Community Power Project for revenue requirement collection.

b. Security Deposits for Performance Based Incentive Projects:

As required in Decision No. 72022, to reinforce its incentive reservation process, the 2012 Plan includes a security deposit proposal for the non-residential PBI program. Under APS's proposal, once an initial reservation is granted to a non-residential PBI project, the customer or system installer[8] (collectively referred to as the "Applicant") would subsequently be required to pay a reservation deposit in order to retain its PBI reservation.

A conditional reservation would be granted to the Applicant when the initial PBI project application is approved. Within seven business days of the issuance of the conditional reservation, the Applicant would be required to submit a reservation deposit to APS equivalent to five percent of the total lifetime PBI commitment request for the reserved project.[9] If the full reservation deposit is not received by the Company within seven business days, the conditional reservation would be cancelled, and those funds would then be awarded to the next ranked project(s) within the category in which the funds originated. APS would

[8] The party that submitted the original application is responsible for submitting the reservation deposit to APS.
[9] For example, the deposit amount required for a PBI project with a lifetime commitment totaling $500,000 would be $10,000 ($500,000 x 0.05).

repeat this process until all funds are exhausted or until the end of the funding cycle, whichever occurs first.

Once a project is successfully interconnected, has passed inspection, and all necessary paperwork has been submitted to APS, the reservation deposit would be refunded to the Applicant. Should a project be terminated at any time by the customer or APS, the reservation deposit would be credited towards the RES and trued-up in the subsequent RES Implementation Plan.

c. Signed Contract Requirement for Residential PV Applications:

Based on feedback from industry stakeholders, APS is proposing that all applications for its residential upfront incentive program be required to include a complete, executed contract between the customer and solar installer/developer, including the technical specifications for the project. If applicable, the Company would also require that a signed lease agreement by the lessor be submitted along with the customer's application. These requirements should improve the reservation processing time and decrease the number of cancellations occurring under the residential program.

d. Updates to the Distributed Energy Administration Plan ("DEAP"):

In addition to the changes described above, APS has made the following modifications and clarifications to its DEAP, which are designed to improve the customer reservation process and enhance information provided for APS's reporting.

- In order to maintain a record of the owner of a residential DE system, additional documentation will be required with a customer's application to receive an incentive for leased PV and leased solar water heating systems.
- Internal Revenue Form W-9 will be sent to all residential and non-residential customers who receive an incentive through the Company's renewable energy incentive program. The owner of the system is considered the party responsible for submitting the W-9, which is the customer for customer-owned systems and the lessor for leased systems.
- Through APS's implementation of a standard solar water heating inspection program in 2011, the Company has observed a need to prorate incentives under certain circumstances. The placement of the solar collector panels will affect the energy savings that a solar water heating system will realize, because the

OG-300 standard rating is based on panel placement in an optimal location with sufficient tilt and southern exposure. Therefore, to allow for installs that are not optimally installed in unique customer site conditions, APS proposes to reduce the incentive to account for the anticipated reduced energy savings.

e. ***Updates to Schools and Government Program:***

The 2011 APS Solar for Schools and Government program[10] has received a high level of interest from schools interested both in participation in the PBI-based incentive program and in hosting an APS-owned PV system. As of the date of this filing, APS has received requests under this program that exceed the available program funding. Based on feedback from industry stakeholders and observations from applications submitted during the first year of the program, APS is proposing to narrow the criteria ranges on the Project Ranking Matrix to better evaluate a school's economic status. APS's revised Project Ranking Matrix is an attachment to Exhibit A. All other application and eligibility requirements for third party installations and hosts for APS-owned systems in the Schools and Government Program remain as originally approved.

Additionally, the strong market response for third-party incentives in the 2011 Schools and Government program demonstrates that school and government facilities no longer need incentives at their current levels to make projects viable for economically challenged districts. The current approved PBI rate for 2012 is $0.145 per kilowatt hour ("kWh") for 15-year terms and $0.132/kWh for 20-year terms. APS is proposing that the third-party incentives for PV installations be reduced to the levels originally proposed for 2013, to $0.123/kWh for 15-year contracts, and $0.112/kWh for 20-year contracts. By reducing the incentive, APS will also be able to fund more projects during a nomination period. The third-party incentive offerings for the 2011 Solar for Schools and Government Program will be expanded to offer an additional $65.8 million in lifetime commitments for PV and solar thermal applications, as well as $562,500 in upfront incentives for solar daylighting installations.

The updated School and Government Solar Program Rider Rate Schedule is attached as Exhibit D.

[10] Approved in Decision No. 72022, as amended by Decision No. 72174.

f. ***Integrated Pilot Program:***

In response to Decision No. 72060,[11] the Company is proposing a two-year pilot program ("Pilot") that explores the coordinated integration of smart grid technologies and customer offerings, energy efficiency ("EE"), DE and demand response ("DR").[12] The proposed Pilot would offer customers served by APS's Pioneer Substation[13] opportunities for managing energy costs by encouraging customers to install complementary measures from different programs in an effort to deliver more total energy savings.

In addition to initial residential energy audits for all participants,[14] up to 100 Pilot customers would be provided incentives for installing grid-tied PV using an APS-owned smart inverter and a suite of "Smart Home"[15] technologies. The proposed integrated offering provides APS with the opportunity to study the most effective way to deploy smart technologies into APS's existing grid infrastructure and leverage them for maximum benefits, as well as how to better manage the grid to handle higher PV penetration, production and consumption data and operational signals. Various communication platforms and protocols will also be studied to determine the benefits and considerations for future deployment.

APS is seeking to collect $1.5 million associated with the DE component of the offering, including incentives for PV systems, system integration costs, project management and the revenue requirement associated with the APS-owned invertors through the RES adjustor. The Company plans to use the same model as its Community Power Project for the revenue requirement collection associated with the capital deployment portion of the budget, which is approximately $40,000. Energy-efficiency related costs would be recovered through

---

[11] Issued January 6, 2011 (Docket No. E-01345A-10-0219).

[12] A detailed description of the EE and DR components of the Pilot can be found in APS's 2012 Demand Side Management Implementation Plan, filed June 1, 2011 in Docket No. E-01345A-11-0232.

[13] APS's Pioneer Substation is located near I-17 and Carefree Highway in North Phoenix and is currently where several of the Company's utility smart grid technologies are planned for deployment. There are approximately 3,500 residential customers, as well as a mix of approximately 600 commercial and industrial customers in the proposed Pilot project area.

[14] The overall program is proposed for up to 1,000 participants.

[15] Smart Home technologies integrate a customer's home consumption and solar production into an analytics tool on their smart phone or personal computer.

the Demand Side Management ("DSM") adjustor, and the DE costs would be recovered through the RES adjustor.

UTILITY-OWNED PROJECTS

APS believes that the interests of customers are best served with a diversified renewable portfolio that manages risk and cost through a combination of third-party owned projects and utility-owned facilities. Acquisition of solar resources through utility ownership is consistent with the Company's long-term resource planning, and will continue to play an important role in APS's ability to meet the RES requirements and its obligations under the 2009 Settlement Agreement.

The expense of installing solar systems impacts APS's overall customer base. The cost to customers as a whole is significantly less for utility-owned projects over the life of a renewable energy asset, as compared with the cost of purchased power.[16] This is because all APS customers benefit from low cost energy production that occurs beyond the expected 30-year life of the facility. This does not occur under a PPA procurement model, where the future cost of continuing to purchase energy through a renegotiation of contract terms or executing new contracts for energy generated by other facilities is an unknown variable.[17]

In addition to an overall lower lifetime benefit to customers as a whole, several factors make utility ownership of renewable energy an ever more important part of APS's procurement strategy. Maturing renewable technologies, challenging financial markets and evolving tax laws have combined to allow the Company to pass along the advantages of owning and operating renewable facilities to its customers. Several factors will result in lower costs and the high level of reliability demanded by APS customers, including: the ability to site resources where they have the most benefit to the APS system; to efficiently finance these projects; to more actively control the development of the facilities; and to own,

---

[16] For a full discussion of the benefits of utility ownership, *see* the rehearing testimony of E. Mahrer, consolidated Docket Nos. E-01345A-10-0166 and E-01345A-10-0262.

[17] A typical PPA has a term of 20 to 30 years. The cost of replacement energy when a PPA terminates is unknown, and could be at a considerably higher cost to ratepayers than the base PPA. In contrast, energy delivered from a utility-owned solar plant continues to be delivered to all customers after the 30-year mark for only the cost of ongoing operations, maintenance and capital improvements.

maintain and improve the generation facility for the full life of the plant. With these advantages, utility ownership of renewable resources is proving to be a highly effective element of the Company's overall renewable procurement strategy, which will provide the best long-term value to APS customers and help the Company achieve its 2015 renewable energy objectives.

Currently, APS has 227 megawatts of existing capacity in its renewable generation portfolio, of which 97 percent is owned and financed by third-party developers. By the end of 2011, APS will add 158 megawatts of additional renewable capacity, of which 113 megawatts will be third-party owned and financed and 45 megawatts will be owned and financed by APS. With the additions proposed in the 2012 Plan, by year-end 2015, the APS renewable generation portfolio will have 886 megawatts of third-party owned and financed capacity (78 percent of the total capacity) and 256 megawatts of APS-owned resources (26 percent of the total capacity). As described in this section, APS believes the benefits to customers as a whole through APS ownership support this diversification and will result in lower cost and high value projects for the Company's renewable generation portfolio.

For the proposed utility-owned programs described below, APS is requesting approval for cost recovery of the revenue requirements associated with these renewable ownership programs (including depreciation expenses, property taxes, operating and maintenance expenses, and return on both debt and equity using the pre-tax weighted average cost of capital approved in the Company's most recent general rate case) through the RES adjustor until the costs can be reflected in base rates. This cost recovery methodology is consistent with Section 15.7 of the 2009 Settlement Agreement adopted in Decision No 71448, and with other Commission decisions related to the AZ Sun Program,[18] the Community Power Project,[19] and the Schools and Government Program.[20]

[18] Decision Nos. 71459 (Jan. 11, 2010) and 71502 (Mar. 17, 2010).
[19] Decision No. 71646 (Apr. 14, 2010).
[20] Decision No. 72022 (Dec. 10, 2010), as amended by Decision No. 72174 (Feb. 11, 2011).

a. ***Expanded AZ Sun Program:***

With approval of the AZ Sun Program in 2010, the Commission authorized APS to develop 100 megawatts of utility-scale solar power plants across Arizona through partnerships with third-party solar developers, contractors and equipment suppliers. APS is successfully implementing AZ Sun projects for the benefit of its customers and the local communities in which projects are constructed, as well as third-party developers. Within ten months of program approval, APS began construction on the first AZ Sun facility. Within 12 months, five projects were in development, totaling 83 megawatts of the 100 megawatts. The first 45 megawatts under this program will begin serving APS customers in 2011, and APS expects to have the final 17 megawatts under contract in the first quarter of 2012.

Building upon this model, in the 2012 Plan APS is requesting authorization to develop and build an additional 100 megawatts of solar generation through the AZ Sun Program, with expected operations of approximately 18 megawatts in 2013, approximately 32 megawatts in 2014, and approximately 50 megawatts in 2015. Combined, the 200 megawatts of AZ Sun projects represent a meaningful economic investment in communities across Arizona. The AZ Sun Program overall is expected to create approximately 1,800 construction jobs,[21] bring other direct investments to local businesses, and provide economic benefits to the communities in which they are being constructed.

b. ***Funding of Chino Valley Project***

APS is also requesting that the Commission authorize recovery of $3.5 million in revenue requirements for a specific PV plant through the RES adjustor. This 19 megawatt plant, which will be located in Chino Valley, is part of the second 50 megawatts of AZ Sun projects approved by the Commission in Decision No. 71502.[22] In that Decision, the Commission assured cost recovery for the full 100 megawatts of then-requested AZ Sun

[21] National Renewable Energy Lab analysis, *Jobs and Economic Development Impact Models*, available at http://www.nrel.gov/analysis/jedi.

[22] Issued March 17, 2010 (Docket No. E-01345A-09-0338).

projects, but deferred determining the recovery mechanism for the second 50 megawatts to the rate case that APS filed on June 1, 2011.[23]

APS is seeking an earlier resolution on the cost recovery mechanism for the Chino Valley project to maintain the current development schedule that the developer, the Town of Chino Valley and APS have worked to achieve. A Commission determination regarding the cost recovery mechanism in this docket would allow construction to commence in January 2012. This would support the solar facility becoming operational by year end 2012.

Certainty regarding the recovery mechanism will allow APS to move forward with a project that represents a significant economic development investment for the Town of Chino Valley, which recently approved local permits to support the project's development. Among other benefits, the project is expected to generate approximately $20 million of labor and materials that will be sourced from the local community, and overall, the facility will ultimately provide an increase in tax base for the Town of Chino Valley that will help fund local schools and other community-related services. As part of the 2012 Plan, APS is requesting that the Commission approve the cost recovery methodology for the Chino Valley project that was approved in Decision No. 71459, which is also consistent with the approach proposed in the Company's pending rate case.[24]

c. Expanded Schools & Government Program:

APS has seen much customer interest in the APS-owned component of the 2011 Schools and Government Program, particularly from economically-challenged school districts throughout the state. Current levels of customer interest exceed the eight megawatts of allotted APS ownership capacity under the 2011 program. As a result, in the 2012 Plan, APS is seeking authorization to expand the deployment of utility-owned systems by offering 25 megawatts of APS-owned facilities to economically challenged schools throughout Arizona, including both rural and metropolitan areas, as well as government facilities in 2012 and

[23] Docket No. E-01345A-11-0224.

[24] *See*, for example, the Direct Testimony of Jeffrey B. Guldner (Docket No. E-01345A-11-0224).

2013. The 2012 proposal does **not** replace the 2011 Schools and Government Program that was approved by the Commission.[25]

For the schools and government projects that would potentially participate in the expanded Schools and Government Program, APS proposes to competitively solicit PV system installation under this program using the same utility ownership arrangement that is being offered in the 2011 Schools and Government Program. The Company is proposing to maintain the existing parameters for schools in utility-owned systems, including the existing criteria regarding bonding capacity and percentage of students in free and reduced lunch programs, as well as the requirement that these schools receive a bid from a third-party installer. The change that APS is requesting in the 2012 Plan is to eliminate the restriction that limits the APS-owned option to only rural schools for the additional 25 megawatts, thereby providing all economically-challenged schools with an additional option to deploy solar resources.

Both school and government systems would be connected directly to the distribution grid on the customer's property. The customer would be billed for a portion of their usage (equivalent to the output of the PV system on a specific rate schedule), which would mirror the benefits of a customer-owned renewable resource, while minimizing the impact to all other ratepayers. The installation, operating, and maintenance components would be managed through third-party installers/developers. Renewable energy from the utility-owned solar systems would not count toward the RES distributed energy requirements; rather, they would be applied to the Company's overall RES requirement. An additional benefit of the proposed APS-ownership arrangement is the elimination of the need to use incentive dollars to fund the PV systems.

The budget impact of the expansion of utility-owned projects in 2012 would be $2.9 million.

[25] Decision No. 72022 (Dec. 10, 2010), as amended by Decision No. 71274 (Feb. 11, 2011).

OTHER KEY PROGRAMS

a. ***Updates to Schedule 6 – Interconnection Study Service:***

The burgeoning renewable energy developer market and APS's need to evaluate the potential safety, reliability and power quality impact on the electric distribution system have historically presented challenges for both project developers and the Company to support the interconnection of renewable generation resources to the APS distribution system. To address these issues, in Decision No. 72022, the Commission approved Service Schedule 6, which set forth a process that clarified and streamlined the interconnection process for non-DE projects on the APS distribution system, and provided the opportunity to assess appropriate application fees and engineering study fees. The approved process and fee structure did not apply to those wholesale interconnections governed by the Federal Energy Regulatory Commission ("FERC") processes.

In the 2012 Plan, APS is proposing to modify Service Schedule 6 to include non-FERC projects interconnecting at or above the 69 kV level. Recent changes in technology and the increased volume of renewable interconnection requests due to the RES has resulted in a need for a formal policy regarding non-FERC interconnections at the 69 kV and above levels. The proposed updates to Schedule 6 are necessary to accommodate developers who wish to pursue transmission interconnection under a non-FERC process. Similar to the FERC interconnection process, the applicant would pay for actual cost for performing each level of the three levels of non-FERC transmission study – feasibility, system impact, and facilities. Applicants would be required to provide a deposit prior to the commencement of the studies, with a true-up once the studies are completed based on actual costs. The modified Service Schedule 6 is attached as Exhibit E.

b. ***Research, Commercialization and Integration:***

The 2012 Plan includes a budget allocation of $1.8 million for the continued research and study of renewable resources, with the focus on ways to enhance and accelerate the development, deployment, commercialization and utilization of renewable resources for the benefit of APS customers. The 2012 Research, Commercialization and Integration budget

was developed based on the 2011 budget and is intended to leverage partnerships with industry, public research institutions and government laboratories. Details of the studies are discussed in Exhibit A.

c. ***Customer Outreach, Marketing, and Partnership Development:***

In the 2012 Plan, APS is proposing customer outreach, marketing and partnership development efforts that will enable the Company to meet RES requirements and sustain long-term growth for renewable energy. The 2012 programs and initiatives are designed to educate customers and key stakeholders, and facilitate continued process improvements for customers participating in programs. The proposed budget will enable APS to continue with customer research, targeted marketing, community outreach, and mass advertising that informs customers of the benefits of renewable energy.

To support the development of a skilled, highly qualified workforce, APS is proposing to continue the Qualified Solar Installer and Trained Solar Installer Programs. To further the development of new homes with sustainable features, APS is proposing to further expand the APS Energy Star® and Solar Homes Program. To educate customers and provide them tools that allow greater transparency, APS is proposing to continue with enhancements to its website, aps.com, as well as the ArizonaGoesSolar.org website.

As part of APS's 2010 Implementation Plan, the Commission had authorized the Company to work with lending institutions to assess how best to model financial incentives to encourage loans for residential DE projects. However, because of the lack of participation from lending institutions, in the 2012 Plan, APS is proposing to discontinue the residential financial lending incentive.

FUNDING REQUIREMENTS

The funding for the 2012 Plan allows APS to exceed compliance with both residential and non-residential DE requirements, as well as the overall RES requirement for 2012 and each subsequent year of the Plan.

The inclusion of program options in the 2012 Plan results in three distinct total RES program budget scenarios for 2012-2016, as described below and depicted on the following table. (Exhibit A contains a more detailed explanation of budget considerations.)

- To fully implement the 2012 Plan under **Option 1**, a total of $129.2 million will be needed; this is $32.8 million above the 2011 funding level. The 2012 budget provides $70.7 million allocation for renewable generation projects, $20 million allocated for residential DE programs, and no new allocation for non-residential DE. Given $6 million in base rates, the current RES Adjustor would need to be reset to collect $123.2 million, which will result in an RES Adjustor rate of $0.013586 per kilowatt hour, with monthly caps of $5.43 for residential customers, $201.84 for commercial and industrial customers with less than three megawatt loads, and $605.53 for commercial and industrial customers with greater than three megawatt loads.[26]

- To fully implement the 2012 Plan under **Option 2**, a total of $141.2 million will be needed; this is $44.8 million above the 2011 funding level. The 2012 budget provides $70.7 million allocation for renewable generation projects, $29.9 million allocated for residential DE programs, and $2.1 million allocation for non-residential DE. For Option 2, the current RES Adjustor would need to be reset to collect $135.2 million, which will result in an RES Adjustor rate of $0.014907 per kilowatt hour, with monthly caps of $5.96 for residential customers, $221.47 for commercial and industrial customers with less than three megawatt loads, and $664.40 for commercial and industrial customers with greater than three megawatt loads.

- To fully implement the 2012 Plan under **Option 3**, a total of $151.5 million will be needed; this is $55.1 million above the 2011 funding level. The 2012 budget provides $70.7 million allocation for renewable generation projects, $40 million allocated for residential DE programs, and $2.3 million allocation for non-residential DE. For Option 3, the current RES Adjustor would need to be reset to collect $145.5 million, which will result in an RES Adjustor rate of $0.016037 per kilowatt hour, with monthly caps of $6.41 for residential customers, $238.27 for commercial and industrial customers with less than three megawatt loads, and $714.81 for commercial and industrial customers with greater than three megawatt loads.

[26] In 2011, the cap for residential customers is $4.05, $150.53 for commercial and industrial customers with less than three megawatt loads, and $451.60 for those with loads three megawatts or more.

APS's Proposed 2012 – 2016 Budget Options

	Option 1	Option 2	Option 3
2012 Budget	$129.2 M	$141.2 M	$151.5 M
2012 - 2016 Budget	$783.1 M	$810.2 M	$873.8 M
RES Adjustor per kWh	$0.013586	$0.014907	$0.016037
Residential Cap	$5.43	$5.96	$6.41
Non-Residential (under 3 MW) cap	$201.84	$221.47	$238.27
Non-Residential (3 MW and over) cap	$605.53	$664.40	$714.81

The APS Renewable Energy Standard Adjustment Schedules for Option 1, Option 2, and Option 3 are attached as Exhibits F, G, and H.

In addition to the Rate Schedule, the Company is seeking approval of the Renewable Energy Standard Adjustment Schedule Plan of Administration ("RES POA"), which is attached as Exhibit I. The RES POA describes the plan for administering the RES Adjustment Schedule and provides for the recovery of the costs for implementing the 2012 Plan that are not otherwise recovered through base rates. Updates to the RES POA will be filed with the Company's future RES Implementation Plans for Commission approval.

CONCLUSION

For the reasons discussed above, APS requests that the Commission:

1. Approve the APS 2012 RES Implementation Plan;
2. Approve the 2012 RES Budget that supports the Commission's policy determination in approving one of the three program and budget options. Option 1 is a total 2012 budget of $129.2 million, Option 2 is a total 2012 budget of $141.2 million, and Option 3 is a total 2012 budget of $151.5 million;
3. Approve the recovery of the costs of incentive payments that are incurred to meet the Company's obligation for Production Based Incentives, up to the amount of lifetime cap to fund the projects, based on the option the Commission adopts. Option 1 results in no incremental or lifetime PBI commitment expansion. Option 2 results in an incremental 2012 PBI commitment of $2.1 million and a total lifetime PBI commitment of $700 million. Option 3 results in an incremental 2012

PBI commitment of $2.3 million and a total lifetime PBI commitment of $730 million;

4. Approve the 100 megawatt expansion of the AZ Sun Program, as described herein;
5. Approve the 25 megawatt expansion of the Schools and Government program, as described herein;
6. Authorize APS to recover the revenue requirement for the Chino Valley project through the RES adjustor;
7. Approve the Integrated Pilot Program;
8. Approve modifications to APS's Distributed Energy Administration Plan described herein, as well as those necessary to reflect the Commission's final order in this matter;
9. Approve APS's Renewable Energy Standard Adjustment Schedule;
10. Approve the Renewable Energy Standard Adjustment Schedule Plan of Administration;
11. Approve the modifications to Service Schedule 6; and
12. Approve modifications to the Schools and Government Solar Program Rate Rider Schedule.

RESPECTFULLY SUBMITTED this 1st day of July, 2011.

By: _____
Deborah R. Scott
Thomas A. Loquvam
Attorneys for Arizona Public Service Company

ORIGINAL and thirteen (13) copies of the foregoing filed this 1st day of July, 2011, with:

Docket Control
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007

Exhibit A

APS Renewable Energy Standard Implementation Plan 2012-2016

aps

Renewable Energy Standard Implementation Plan 2012 – 2016

July 1, 2011

TABLE OF CONTENTS

EXHIBITS AND ATTACHMENTS

Exhibit 1A	APS RES Implementation Plan 2012 Overview
Exhibit 1B	APS 2012 – 2016 RES Program Summary
Exhibit 1C	Energy Contributions to RES by Resource Group
Exhibit 1D	Residential Customer-Sited Distributed Energy
Exhibit 1E	Non-Residential Customer-Sited Distributed Energy
Exhibit 2A	APS 2012 – 2016 RES Budget Summary (in $M's)
Exhibit 2B	APS 2012 RES IP – Optionality Detail
Exhibit 3A	APS Existing and Targeted Generation (MWh)
Exhibit 3B	APS Existing and Targeted Generation Capacity (MW)
Exhibit 3C	APS Renewable Existing and Targeted Generation RES Costs (in $M's) REDACTED
Exhibit 3D	Third-Party APS Renewable Generation RES Costs ($/MWh) REDACTED
Exhibit 3E	AZ Sun Program Revenue Requirements
Exhibit 4A	APS Customer-Sited Distributed Energy Programs (MWh)
Exhibit 4B	APS Customer-Sited Distributed Energy Incentive Programs Costs (in $M's)
Exhibit 4C	PBI Commitments (in $000's)
Exhibit 4D	PBI New Contracts Expansion (in $000's)
Exhibit 4E	Flagstaff Community Power Project Budget (in $M's)

Attachment 1	Schools and Government Program Project Ranking Matrix

EXECUTIVE SUMMARY

Arizona Public Service Company ("APS" or "Company") has prepared this Implementation Plan ("Plan") for the five-year period of 2012 through 2016 in compliance with the Arizona Renewable Energy Standard ("RES"), which requires the filing of an annual plan describing how utilities intend to comply with the RES requirements for the next five years. This Plan describes the renewable energy resources that will be added over the next five years to achieve APS's annual RES targets and rate settlement commitments, and provides the Arizona Corporation Commission ("Commission") options regarding the type and scale of programs APS will implement during this planning period. The RES requirement is 3.5 percent of total retail sales in 2012, and the rules prescribe that 30 percent of that requirement is to come from distributed energy ("DE") solutions.

Additionally, the Company's 2009 Settlement Agreement ("Settlement")[1] adopted provisions that exceed the requirements of the RES. The Settlement required, among other provisions, that "APS shall make its best efforts to acquire new renewable energy resources with annual generation or savings of 1,700,000 megawatt-hours ("MWh") to be in service by December 31, 2015...".[2] It further states that "these new resources shall be in addition to existing resources or commitments as of the end of 2008...".[3] By complying with the Settlement requirements, APS expects to achieve production that will total more than double the 2015 RES requirement of 5 percent of its retail sales. In order to achieve sufficient capacity to meet the requirement in 2015, the Company must establish through this Plan its procurement and development activities in 2012 to meet this goal.

In order to achieve the 300 megawatts ("MW")[4] of additional capacity identified by APS as needed in 2015 to comply with the requirements set forth in the Settlement, this Plan proposes utilizing two procurement methods including 1) 150 MW that includes a blend of purchasing additional energy through Power Purchase Agreements ("PPA") and additional DE system developments, and 2) 150 MW of new projects as part of an expansion of the AZ Sun Program and the Schools and Government Program, as well as additional DE projects to be proposed as part of APS's 2013 Plan.

In this Plan, APS is proposing three distinct energy and/or budget options that are intended to allow APS to meet or exceed the RES requirement, as well as the requirement set forth in APS's Settlement. Option 1 will represent only the energy needed to meet either the RES requirements or the Settlement requirement. Conversely, Option 3 will reflect continued expansion of DE renewable energy development. Option 2 represents an approach that falls between Options 1 and 3, and seeks to balance a commitment to meet or exceed annual RES requirements with the moderation of budgets and capacity based on existing program performance.

APS is proposing options for three key elements of its overall five-year RES program:

- Third-party financed Renewable Generation ("RG") PPAs;
- Annual non-residential DE incentive budgets and resulting capacity; and
- Annual residential DE incentive budgets and resulting capacity.

[1] Decision No. 71448 (December 30, 2009).
[2] Settlement, Paragraph 15.1.
[3] *Id.*
[4] The Company projects that it must procure approximately 502,500 MWh of additional energy, or approximately 300 MW of additional photovoltaic-equivalent capacity.

By year end 2011, APS expects to have approximately 381 MW of RG in operation. While the Company will continue to bring projects online between 2012 and 2015, no new additional RG procurement is needed in order to achieve RES compliance in 2012 or during this planning period. However, APS will need to continue to develop additional RG between 2012 and 2015 to achieve the requirements set forth in the Company's Settlement, as described in Section V.

This Plan offers three options for continuation of the residential DE incentive based program. Based on customer incentive commitments made in 2011, Commission-approved funding to make additional customer incentive commitments, and contract commitments tied to the 2008 DE Request For Proposal ("DE RFP"), APS will have sufficient non-residential DE energy production by year-end 2011 to exceed APS's compliance requirement both in 2012 and throughout the five-year period described in this Plan. Therefore, no additional non-residential DE installations are needed for APS to achieve compliance with its non-residential DE requirement in 2012. However, the Company is proposing three options in Section V of the Plan to assist APS in achieving its Settlement requirement in 2015. Two of the three options include an expansion of APS's non-residential program between 2012 and 2014.

In addition to the Plan being built on 2012 RES compliance as well as compliance with the Settlement in 2015, a few additional key elements also reflected in this Plan are provided below:

- Modifications to the Interconnection Process to include non-FERC projects interconnecting at or above the 69kV level;
- Refinements to the Schools and Government Program's Project Ranking Matrix to better evaluate a school's economic status;
- APS's proposed Integrated Energy Pilot, which is a two-year program that explores the coordinated integration of utility smart grid technologies and customer offerings including energy efficiency, renewable energy and demand response;
- The Company plans to install production meters on all residential and non-residential up-front incentive ("UFI") photovoltaic ("PV") installations on both new installations and incrementally on all previously installed customer sited systems;
- Per Decision No. 72022, APS is proposing that all non-residential production-based incentive ("PBI") project applications must be required to pay a refundable Reservation Deposit in order to retain a reservation;
- APS will require in 2012 that all applications for its residential UFI program include an executed contract between the customer and solar installer/developer and complete technical specifications for the projects;
- In an effort to increase the number of projects funded in response to the strong market demand for third-party PV incentives in the 2011 Schools and Government Program, APS is proposing to reduce the PBI rate offerings for the 15-year and 20-year offerings to the levels originally proposed for 2013;
- In addition to the meter installations on residential and non-residential PV systems, security deposits, and a signed contract requirement for residential PV applications, APS has made other changes to the Distributed Energy Administration Plan ("DEAP") including:

- As a result of Decision No. 72022, the DEAP now reflects that all applications for non-residential PBI incentives must include both an executed contract between the customer and solar installer/developer and technical specifications for the project;

- To remain consistent with the incentive adjustments for renewable technologies, APS is decreasing the incentive for residential geothermal resources from $0.90/kWh to $0.80/kWh;

- APS developed additional documentation that must be submitted along with a customer's application to receive an incentive for leased PV and leased solar water heating systems;

- APS is expanding the requirement to submit a Form W-9 to all customers who receive an incentive through the Company's renewable energy incentive program. The owner of the system, either the customer or the lessor, is responsible for submitting the form. This change will apply to both residential and non-residential system installations; and

- Through APS's implementation of a standard solar water heater ("SWH") inspection program in 2011, the Company has observed a need for an incentive prorate calculator to recognize heaters that are not optimally installed. APS proposes to reduce the incentive for these installations to account for the anticipated reduced energy savings.

- Continuation of APS's customer outreach programs and education including its Qualified Solar Installer Program, Trained Solar Installer Program, ENERGY STAR® Plus Solar Homes Program, Arizona Solar Challenge/SmartPower program, and the ArizonaGoesSolar.org website; and

- On-going commercialization and integration studies that provide direct value in planning the future direction of renewable energy.

The total cost of APS's Plan is comprised of four key cost segments: Renewable Energy in Operation through 2011, Existing Commitments, Additional Renewable Energy for 2012 RES Compliance, and the Expansion Necessary to Meet Settlement Requirements. A summary of the costs of these segments for each of the three options, and the major components for each segment is included in Exhibit 2A.

The inclusion of options for specific APS programs in the 2012 Plan results in three distinct total RES program budget scenarios for 2012-2016, as described below and depicted on the following table.

- To fully implement the 2012 Plan under **Option 1**, a total of $129.2 million will be needed. The 2012 budget provides $70.7 million allocation for renewable generation projects, $20 million allocated for residential DE programs, and no allocation for non-residential DE. Given $6 million in base rates, the current RES Adjustor would need to be reset to collect $123.2 million, which will result in an RES Adjustor rate of $0.013586 per kilowatt hour ("kWh"), with monthly caps of $5.43 for residential customers, $201.84 for commercial and industrial customers with less than three

MW loads, and $605.53 for commercial and industrial customers with greater than three MW loads.[5]

- To fully implement the 2012 Plan under **Option 2**, a total of $141.2 million will be needed. The 2012 budget provides $70.7 million allocation for renewable generation projects, $29.9 million allocated for residential DE programs, and $2.1 million allocation for non-residential DE. For Option 2, the current RES Adjustor would need to be reset to collect $135.2 million, which will result in an RES Adjustor rate of $0.014907 per kWh, with monthly caps of $5.96 for residential customers, $221.47 for commercial and industrial customers with less than three MW loads, and $664.40 for commercial and industrial customers with greater than three MW loads.

- To fully implement the 2012 Plan under **Option 3**, a total of $151.5 million will be needed. The 2012 budget provides $70.7 million allocation for renewable generation projects, $40 million allocated for residential DE programs, and $2.3 million allocation for non-residential DE. For Option 3, the current RES Adjustor would need to be reset to collect $145.5 million, which will result in an RES Adjustor rate of $0.016037 per kWh, with monthly caps of $6.41 for residential customers, $238.27 for commercial and industrial customers with less than three MW loads, and $714.81 for commercial and industrial customers with greater than three MW loads.

APS's Proposed 2012 – 2016 Budget Options[6]

	Option 1	Option 2	Option 3
2012 Budget	$129.2 M	$141.2 M	$151.5 M
2012 – 2016 Budget	$783.1 M	$810.2 M	$873.8 M
RES Adjustor per kWh	$0.013586	$0.014907	$0.016037
Residential Cap	$5.43	$5.96	$6.41
Non-Residential (under 3 MW) cap	$201.84	$221.47	$238.27
Non-Residential (3 MW and over) cap	$605.53	$664.40	$714.81

APS's RES adjustor for 2012 will be determined by the budget option that is selected by the Commission.

[5] In 2011, the cap for residential customers is $4.05, $150.53 for commercial and industrial customers with less than three megawatt loads, and $451.60 for those with loads three megawatts or more. The 2012 Plan provides the data necessary to support the level of costs APS believes will be incurred, and the data necessary to demonstrate that the proposed Adjustment Schedule RES is designed to recover only costs in excess of market cost of comparable generation.

[6] Refer to Exhibit 2A for a more detailed breakout of the budget options.

I. INTRODUCTION

A. Renewable Energy Requirements

1. 2012–2016 Renewable Energy Standard Requirement

The Arizona RES was established in August 2007, and requires APS to file an Implementation Plan each year for review and approval by the Commission.[7] The Plan describes the Company's strategy to meet the requirements of the RES for the next five calendar years, identifying the eligible technologies, the expected schedule for the resource incorporation on a year-by-year basis, and the kilowatts ("kW") and kWh expected to be added to the APS portfolio by the incorporation of those resources. The RES provides that reasonable and prudent costs incurred to comply with the RES Rules are recoverable. Further, the RES provides that implementation of the approved Plan by the utility shall serve to measure the utility's compliance with the RES.

APS has prepared this Plan for the five year period 2012-2016 in compliance with the RES Rules. The RES requires that affected utilities satisfy an annual renewable energy requirement by providing a percentage of their electric retail sales from renewable resources. The required percentage for the current implementation period begins at 3.5 percent in 2012 and increases to six percent in 2016. That minimum percentage increases to 15 percent of the utility's total retail sales by the year 2025.

The RES rules define renewable resources as: 1) technologies that displace conventional energy resources that would otherwise be used to provide electricity to the utility's customers; and 2) DE, a renewable resource application installed at the customer premises and generally used to displace customer energy consumption. As part of the RES, the energy generated or displaced by DE is applied towards the percentage of the utility's distributed renewable energy requirement. For both RG and DE, kWh derived from renewable resources for purposes of compliance with the RES are tracked as Renewable Energy Credits ("REC"), where one kWh equals one REC.[8]

2. 2009 Settlement Agreement Requirement

The Company's Settlement adopted provisions that exceed the requirements of the RES. The Settlement required, among other provisions, that "APS shall make its best efforts to acquire new renewable energy resources with annual generation or savings of 1,700,000 megawatt-hours ("MWh") to be in-service by December 31, 2015...". It further states that "these new resources shall be in addition to existing resources or commitments as of the end of 2008...". By complying with the Settlement requirements, APS expects to achieve production that will total more than double its 2015 RES requirement of 5 percent of its retail sales. In order to achieve sufficient capacity to meet the requirement in 2015, the Company must establish through this Plan its procurement and development activities in 2012 to meet this goal.

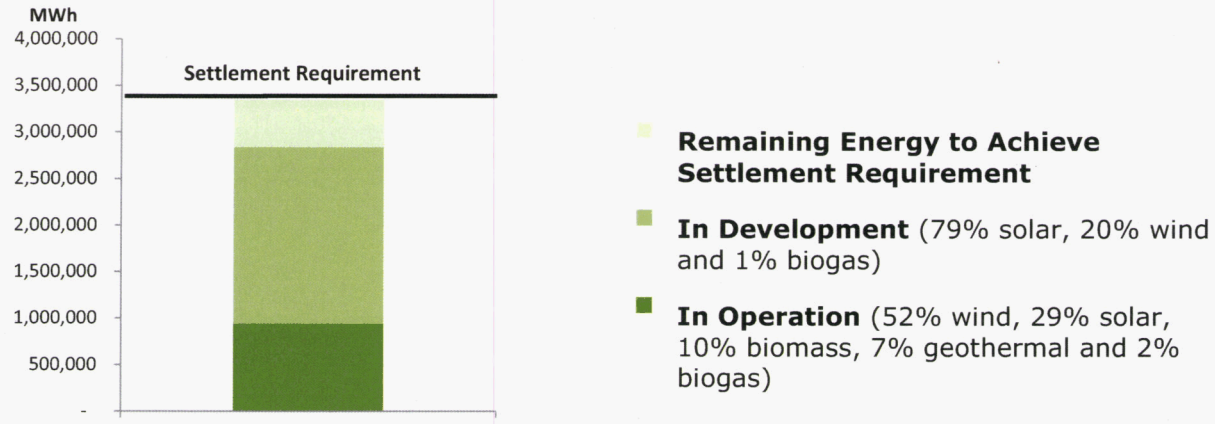
APS determined the amount of renewable energy needed to achieve the Settlement requirement by evaluating the energy generated by existing facilities in the APS RG and DE

[7] A.A.C. R14-2-1801 et. seq.

[8] "Renewable Energy Credit" means the unit created to track kWh derived from an Eligible Renewable Energy Resource or kWh equivalent of Conventional Energy Resources displaced by Distributed Renewable Energy Resources. A.A.C. R14-2-1801(N).

portfolios, as well as the expected production of projects in construction or under contract. The Company projects that it must procure approximately 502,500 MWh of additional energy, or approximately 300 MW of additional PV-equivalent capacity, and add customer-sited resources sufficient to meet the residential DE requirements to achieve the requirement set forth in its Settlement by 2015.

Chart 1: Renewable Energy Needed to Achieve Settlement Requirement in 2015



APS proposes to develop the additional energy needed to meet the Settlement requirement through; 1) a blend of purchasing additional energy through Power Purchase Agreements ("PPAs") and additional DE system developments; and 2) building new projects as part of an expansion of the AZ Sun Program and the Schools and Government Program, as well as additional DE projects to be proposed as part of APS's 2013 Plan. The Company plans to develop 150 MW through each of these approaches, with projects to be in operation between 2012 and 2015.

3. Organization of the Plan

APS's 2012 – 2016 Plan includes a series of options in meeting its energy requirements for Commission consideration. The proposed options were developed to 1) achieve compliance with the 2012 RES requirements, 2) achieve compliance with the requirements set forth in the Settlement, and 3) provide the Commission with options regarding the type and scale of programs APS will implement during this planning period. This is especially important considering APS's need to continue securing resources in 2012 to meet the requirement in 2015 set forth in the Settlement.

In this Plan, APS is proposing three distinct energy and/or budget options. In each case, Option 1 will represent only the energy needed to meet either the RES requirements or the Settlement requirement. Conversely, Option 3 will reflect continued expansion of DE renewable energy development. Option 2 represents an approach that falls between Options 1 and 3, and seeks to balance a commitment to meet or exceed annual RES requirements with the moderation of budgets and capacity based on existing program performance.

APS is proposing options for three key elements of its overall RES program, which are highlighted in Table 1:

- Third-party financed RG projects (PPAs);
- Annual non-residential DE incentive budgets and resulting capacity;
- Annual residential DE incentive budgets and resulting capacity.

Table 1. APS's 2012–2016 Proposed Options

	Options	Option 1	Option 2	Option 3
150 MW Third Party and Customer-Sited Projects	**Third-party PPAs for Renewable Generation**	Emphasis on utility-scale, central station RG *150 MW*	Moderated amount of RG, allowing for some non-residential incentive program capacity *125 MW*	Less RG capacity to support DE emphasis *100 MW*
	Non-residential Distributed Energy Incentives	Existing commitments achieve compliance, no new incentives offered *0 MW*	Limit incentives to small and medium projects only *25 MW*	Continue incentives for all project size categories *50 MW*
	Residential Distributed Energy Incentives	Achieve annual compliance target only *$20 M*	Exceed compliance in 2011, maintain margin through 2016 *~$30 M*	$40M budget in 2012, reduced by $5M annually to 2016 *$40 M*
150 MW Third-party developed, APS-owned projects	AZ Sun Program Expansion, Schools and Government Program expansion and other customer-sited community solar projects			
2012 Budget		**$ 129.2 million**	**$ 141.2 million**	**$ 151.5 million**
2012 RES Adjustor (Residential Cap)		**$5.43**	**$5.96**	**$6.41**
2012 – 2016 Program Budget		**$ 783.1 million**	**$ 810.2 million**	**$ 873.8 million**

In developing this Plan, the Company has organized the RG and DE components of the RES into four separate sections in this document:

- **Section II, Renewable Energy in Operation through 2011**, includes the Company's in-service RG and DE as of the date of this filing, as well as additional RG and DE planned to be in service by the end of 2011;
- **Section III, Existing Commitments**, outlines the RG and DE projects that are contracted or committed and expected to be in-service in the 2012 – 2013 timeframe;
- **Section IV, Additional Renewable Energy for 2012 RES Compliance** describes the additional energy APS needs in 2012 in order to achieve compliance; and
- **Section V, Expansion Necessary to Meet Settlement Requirements** combines all of the renewable energy described in Sections II, III, and IV and describes in detail the three options for Commission consideration regarding how the Company will acquire the additional capacity needed in 2015 in order to comply with the 2015 requirement set forth in the Settlement.

B. 2012–2016 Renewable Energy Standard Program Funding

Each option proposed in this Plan will allow APS to meet or exceed its individual DE requirements as well as the Company's overall RES requirement in each year. The inclusion of options for specific APS programs in this Plan results in three distinct total RES program budget scenarios for 2012 – 2016. Exhibit 2A shows the RES budget in each of the five years of the Plan relative to each option.

APS's plan for obtaining additional renewable energy resources to meet the Settlement requirements gives consideration to both short and long-term customer costs. The Company has demonstrated that long-term customer costs are lower when APS finances and owns renewable energy projects, providing certainty in both cost and delivery of energy through the full life of the system, whereas projects obtained through the PPA model present some near-term cost savings and are coupled with uncertainty after the term of the agreement which may lead to higher costs to replace the capacity. These factors have contributed to APS's proposal in this Plan to meet the Settlement renewable energy requirement through a blend of APS and third-party owned resources.

This Plan makes reasonable assumptions concerning renewable energy resources, and builds on APS's continued experience with these programs. Based on the expected on-line capacity for both RG and DE projects, the Company believes it will have sufficient energy by the end of 2011 to comply with the 2012 overall RES requirement and the non-residential DE requirement. However, APS must make additional commitments in each year of the Plan for compliance with its residential DE requirement.

In each succeeding year, APS will continue to request a reset of the adjustor to collect the estimated costs for the following calendar year. The budget summary for the five-year period covered by this Plan can be found in Exhibit 2A.

II. RENEWABLE ENERGY IN OPERATION THROUGH 2011

A. Renewable Generation Projects

1. Renewable Generation Currently in Operation

As reported in the Company's 2010 RES Compliance Report, APS's RG portfolio consisted of 233 MW of RG resources. Of this amount, 6 MW are APS solar facilities and the remaining 227 MW were developed and are operated by third-parties, with energy sold to APS through PPAs. By the end of 2010, these facilities combined produced over 695,120 MWh, which exceeded planned production by 25 percent.[9]

APS's Portfolio – Year End 2010

a. Utility-Owned Projects

APS owns approximately 6 MW of solar capacity, which is about 3 percent of APS's current RG portfolio. Approximately 1 MW of this capacity represents a solar trough facility located at the Company's Saguaro Generating Station near Red Rock, AZ. The remainder of the solar capacity is PV and includes both fixed and tracking installations located throughout Arizona.

b. Third-Party Financed Projects

Approximately 97 percent of APS's current RG portfolio consists of projects that are owned and financed by third-party developers for a total of 227 MW. All of these projects were procured by APS through competitive solicitations resulting in PPAs.

- Aragonne Mesa - 90 MW wind facility located in Guadalupe County, New Mexico.
- High Lonesome Wind Ranch - 100 MW wind generation facility located in Torrance County, New Mexico.
- Salton Sea/CE Turbo - 10 MW geothermal facility located in Imperial County, California.

[9] In 2010, APS's RG requirement under the RES was 554,190 MWh. By year end, APS actually generated 695,121 MWh.

- Snowflake White Mountain Power - 25 MW biomass facility located near Snowflake, Arizona.

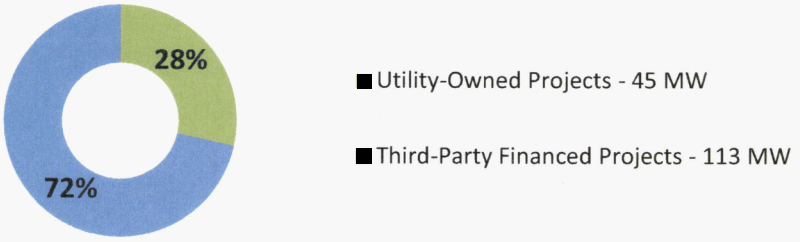
- Sexton (Glendale Landfill) – 2.8 MW biogas (landfill gas) facility located at the City of Glendale landfill in Glendale, Arizona.

APS is required to include pricing information related to RG projects as part of this Plan and believes it is in the best interest of its customers and the Company to ensure that future suppliers of renewable resources compete for the right to supply renewable energy without predicted pricing assumptions or visibility into competitively confidential information. Therefore, APS has submitted a redacted version of that confidential information in Exhibits 3C and 3D, and will provide Staff this information pursuant to an executed Protective Agreement.

2. Renewable Generation Expected to be In Operation by Year End 2011

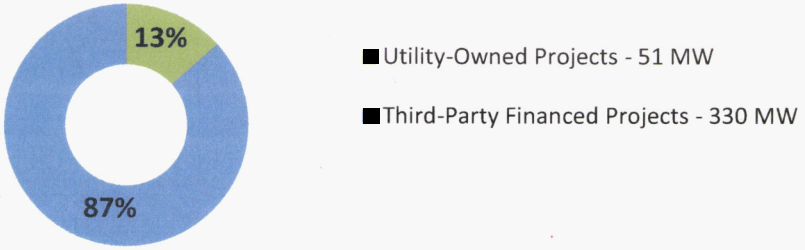
APS plans to add 158 MW of RG by December 31, 2011. Of the 158 MW, 45 MW were procured through the AZ Sun Program and 113 MW were procured through competitive solicitations resulting in a PPA with a third-party developer.

Additional Generation Expected to Be In Operation by Year-End 2011



These commitments, in addition to APS's current generation in operation, will result in a RG portfolio of approximately 381 MW[10] by the end of 2011 comprised of 13 percent of utility-owned resources and 87 percent of third-party financed resources.

APS's Expected Portfolio – Year-End 2011



[10] APS contracted for an additional 10 MW from the Snowflake White Mountain Power biomass facility which expires in August 2011. Therefore, the total portfolio by year-end 2011 has been reduced by 10 MW as compared to year-end 2010.

a. Utility-Owned Projects – AZ Sun Program

The AZ Sun Program was approved by the Commission on March 10, 2010.[11] Through this program, APS will develop 100 MW of utility-scale solar power plants across Arizona through partnerships with third-party solar developers, contractors and equipment suppliers. Since program approval, the Company has entered into agreements to develop five solar plants totaling 83 MW of the 100 MW program. The first 45 MW, as highlighted below, will be online and serving customers by late-2011 with the full 100 MW operational by 2014.

- The Paloma Solar Plant will be located in Gila Bend, Arizona. The 17 MW facility being developed by First Solar will generate approximately 42,000 MWh annually and is expected to be in-service September 2011. Construction on this facility began on May 18, 2011.

- The Cotton Center Solar Plant will also be located in Gila Bend, Arizona. The 17 MW facility being developed by SOLON Corporation ("SOLON") will generate approximately 46,000 MWh annually and is expected to be in-service November 2011. Construction on this facility began on February 1, 2011.

- The Hyder Solar Plant will be located in Hyder, Arizona. The 16 MW solar facility being developed by SunEdison, LLC is scheduled to come online in two phases. Phase I is 11 MW and is expected to be in-service October 2011 producing approximately 28,000 MWh annually. The remaining 5 MW is expected to be in-service March 2012. Construction on this facility began on June 13, 2011.

The costs of RG projects under the utility-owned model recovered through the RES are based on the revenue requirements associated with the installations owned by the Company. Consistent with the cost recovery established in the Settlement, these revenue requirements include depreciation expense, property taxes, operating and maintenance expense, and return on both debt and equity using the pre-tax weighted average cost of capital approved in the Company's most recent general rate case.

Costs of the first 50 MW of the AZ Sun Program are being recovered through the RES adjustor until such time as the resources can either be incorporated into APS's base rates or recovered through an alternate mechanism. Consistent with this treatment, on June 1, 2011 APS filed its 2012 Base Rate Case[12] and requested that cost recovery for the first 50 MW be removed from the RES adjustor and collected through base rates.

b. Third-Party Financed Projects[13]

APS expects to take delivery of energy from the following third-party projects by the end of 2011:

[11] Decision No. 71502.
[12] Docket No. E-01345A-11-0224.
[13] APS assumes that all PPA contracts will perform at approximately 5 percent below the expected energy output in the first year of operation based on historic observations.

- The Ajo Generating Station is a solar plant that will be located near Ajo, Arizona with a capacity of 4.5 MW. The facility is estimated to be in service in November 2011, and the anticipated yearly output is approximately 10,000 MWh.

- The Prescott Solar Plant will be located in Prescott, Arizona with a capacity of 10 MW. APS expects the facility to be in service in October of 2011. The anticipated yearly output is approximately 25,000 MWh.

- The Perrin Ranch Wind Farm will be located near Williams, Arizona and will provide 99 MW of wind generation. APS expects the facility to be completed by the end of 2011, with an anticipated yearly output of approximately 282,000 MWh following the first year of service.

The cost of third-party renewable energy contracts includes two components: costs associated with comparable conventional generation, which are collected consistent with the accounting rules related to APS's Power Supply Adjustor ("PSA"); and above-market costs (if such exist), those costs above the cost of comparable conventional generation.[14] For targeted future contracts, such as those under the Small Generator Standard Offer, the price is estimated based on existing RG contracts, recent market experience, and general trends observed in RG project development.[15] All renewable resource costs are described in terms of dollars per MWh above APS's comparable conventional generation cost.

B. Customer-Sited Projects

1. Total Installed Capacity

As reported in the Company's 2010 RES Compliance Report, by year-end 2010, APS had over 58 MW of both residential and non-residential installed capacity through its DE program, generating over 131,400 MWh.

As of June 24, 2011, APS customers have brought online an additional 8.6 MW of residential capacity and 21.4 MW of non-residential capacity. APS is expecting to exceed 2011 RES compliance for both its residential and non-residential requirements.

2. 2008 DE Request for Proposal

As a result of the Company's DE RFP, APS signed three contracts, one of which is expected to be in service by year end 2011. In 2010, APS entered into a Distributed Renewable Energy Customer Procurement Agreement through its approved Customer Aggregation Model, in which 25,000 MWh will be developed each year with a contract requirement of 75,000 MWh at full deployment. This program begins in 2011 with 25,000 MWh of generation expected in 2012. The contract is characterized by fixed declining incentive levels, resource development requirements and performance metrics.

The remaining two contracts resulting from the DE RFP are described in Section III of this Plan.

[14] A.A.C. R14-2-1801(K) defines Market Cost of Comparable Conventional Generation.
[15] Actual costs are used once contracts are executed.

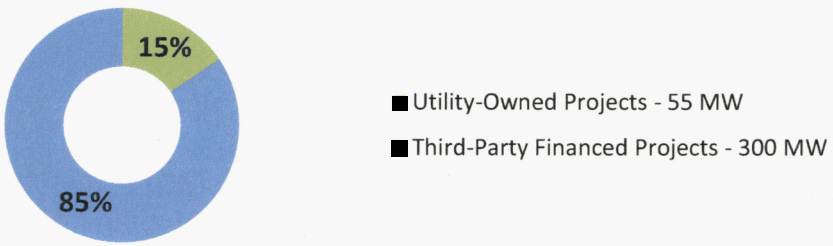
III. EXISTING COMMITMENTS

Beyond those projects expected to be in service by the end of 2011, APS has made additional contractual commitments to RG projects that are expected to be in-service between 2012 and 2013, as well as ongoing, approved DE initiatives that will continue both in 2012 and beyond. The resulting energy will allow APS to exceed the production needed to achieve compliance with the 2012 RES requirement. It is important to note that these commitments and initiatives are necessary for APS to achieve the Settlement requirements.

A. Renewable Generation Projects

In addition to the approximately 381 MW of RG currently in operation or expected to be installed through 2011, APS has contracted for an additional 355 MW[16] which are expected to be in-service between 2012 and 2013. Of this total, 55 MW were procured or committed through the Company's AZ Sun Program and 300 MW through competitive solicitations resulting in PPAs with third-party developers.

Existing Commitments Expected to Be In Operation Between 2012 and 2013



These commitments will result in a RG portfolio of approximately 736 MW, comprised of 14 percent of utility-owned resources and 86 percent of third-party financed resources.

APS's Expected Portfolio – Year End 2013

1. Utility-Owned Projects – AZ Sun Program

As previously discussed, APS has signed five contracts under the AZ Sun Program, which represent 83 MW of the 100 MW program. APS will procure the remaining 17 MW through a Request For Proposal ("RFP") process expected to occur in the second half of 2011. As noted

[16] Includes 32 MW expected as a result of APS's 2011 Small Generator Standard Offer.

in Section II, the first 45 MW developed through this program will be completed and begin serving APS customers in 2011.

The 55 MW that will enter commercial operation after 2011 include the following:

- The second phase of the Hyder Solar Plant that will be located in Hyder, Arizona. The five MW facility being developed by SunEdison, LLC will generate approximately 13,000 MWh annually and is expected to be in service during Q1 of 2012;
- The Chino Valley Solar Plant will be located in Chino Valley, Arizona. The 19 MW facility being developed by SunEdison, LLC will generate approximately 46,000 MWh annually and is expected to be in service during Q3 of 2012;
- The Luke Air Force Base Solar Plant will be located in Glendale, Arizona. The 14 MW facility being developed by SunPower, LLC will generate approximately 35,000 MWh annually and is expected to be in service in 2013; and
- The remaining 17 MW of the current 100 MW AZ Sun Program will be procured through a competitive solicitation process anticipated to occur in the second half of the year and is expected to be in service in 2013.

Table 2 is a summary of the current 100 MW AZ Sun Program highlighting the size, expected in-service dates and cost recovery mechanism of each generating facility.

Table 2. Current AZ Sun Projects

Generating Facility	Capacity (Net MWac)	Expected In-Service	Recovery Mechanism
Paloma	17	Sept. 2011	Per Decision No. 71502, recovered via RES until included in base rates or other mechanism.
Cotton Center	17	Nov. 2011	
Hyder Phase I	11	Oct. 2011	
Hyder Phase II	5	Q1 2012	
Tranche 1 Total:	**50**		
Chino Valley	19*	Q3 2012	Included in the Company's 2012 Rate Case filed June 1, 2011; proposed recovery via RES until included in base rates or other mechanism.
Luke AFB	14	2013	
TBD	17	2013	
Tranche 2 Total:	**50**		

*In this Plan, the Company is requesting Commission approval to collect the revenue requirement for the Chino Valley project in the same manner that was allowed for the Tranche 1 projects.

Consistent with the cost recovery established in the Settlement, the Commission authorized the Company to recover the revenue requirements associated with APS's renewable ownership programs (including depreciation expense, property taxes, operating and maintenance expense, and return on both debt and equity using the pre-tax weighted average cost of capital approved in the Company's most recent general rate case) through the RES adjustor until the costs can be reflected in base rates.

Cost recovery of the 50 MW Tranche 1 of the AZ Sun Program was approved to be collected through the RES adjustor until such time as it can either be incorporated into APS's base

rates or recovered through an alternate mechanism.[17] Consistent with the prescribed cost recovery treatment, on June 1, 2011, APS filed its 2012 Rate Case[18] and requested that cost recovery for the 50 MW included in Tranche 1 - the Paloma, Cotton Center and Hyder solar plants - be removed from the RES adjustor mechanism and transferred to base rates.

APS is prepared to move forward on the development of the first Tranche 2 solar plant, the 19 MW Chino Valley project which is scheduled to be in-service by Q3 2012, with project development commencing in January 2012. The Company is requesting approval to recover the revenue requirement associated with the Chino Valley Solar Plant through the RES until a final decision is made in the rate case. If approved as part of the Plan, APS will be able to move forward with a project that will generate between 120 and 160 construction jobs and provide other related economic development benefits for the Chino Valley residents.

APS therefore requests that the cost recovery mechanism for the Chino Valley Solar Plant revenue requirements be included in the RES adjustor until a final decision on a cost recovery mechanism for the second 50 MW (Tranche 2) is reached in its pending rate case.

2. Third-Party Financed Projects

A key component of the APS procurement strategy is the diversification within its RG portfolio to include a mix of both utility-owned and purchased power projects. APS has contracted for over 268 MW of additional generation through PPAs, for a total of 638 MW, which are all expected to be in service within the five-year horizon included in this Plan as described below:

- The Solana Generating Station will be located near Gila Bend, Arizona. The facility will generate 250 MW using solar trough technology with thermal energy storage. This project began construction in November 2010, and APS expects the facility to be completed in 2013 with an anticipated yearly output of approximately 903,000 MWh when fully operational.

- Through its 2010 Small Generation Standard Offer program, APS is developing two projects expected to be in service in 2012. The first, a 15 MW solar generation facility located in Tonopah, Arizona, is expected to be in service in December 2012 and the anticipated first-year output is approximately 35,000 MWh. The second is a landfill gas generation facility, located in Surprise, Arizona. This project is expected to generate 3.2 MW, with an expected commercial operation date in June 2012 and an anticipated yearly output of 23,000 MWh.

- APS issued its second Small Generator Standard Offer solicitation on April 5, 2011. The Small Generator Standard Offer program allows developers to provide APS with RG projects ranging from 2 MW to 15 MW. APS received bids from 46 companies for 103 projects. The Company plans to shortlist several projects by July 15, 2011 with final project(s) selection by October 17, 2011. The Small Generator Standard Offer Program, as approved in Decision No. 72022, will result in approximately 200,000 MWh over the three-year deployment period. The Company anticipates issuing a third solicitation in 2012 which will serve as the last in the series of three solicitations that define the Company's Small Generator Standard Offer program.

[17] Decision No. 71502 (March 17, 2010).
[18] Docket No. E-01345A-11-0224.

3. Modifications to the Interconnection Process for Non-FERC Generation Facilities (Service Schedule 6)

As part of its 2011 Plan, APS established a process for improving the non-FERC interconnection process for renewable projects interconnecting into the APS system and utility-owned generation at the distribution level, which was approved by the Commission in Decision No. 72022. Schedule 6 creates opportunities for developers to request study work by APS and sets forth an associated fee schedule for these services. In this Plan, the Company is proposing to modify Schedule 6, which defines this process to accommodate non-FERC projects interconnecting at or above the 69kV level.

Revenues from fees associated with these studies will be added to the RES budget, which will be used to balance any variances in actual charges from the fees described in Schedule 6. The Company has proposed modifications to Schedule 6 (see Exhibit E to this Application), noting the studies, costs, and payment terms associated with 69kV and above non-FERC interconnections.

B. Customer-Sited Projects

This section describes DE initiatives that have been approved by the Commission in previous Plans. These programs will continue throughout 2012, but while they contribute to APS's overall renewable energy portfolio, the energy produced from these projects is not required in order for APS to reach its 2012 RES DE requirements. However, these projects will assist APS in achieving the requirements set forth in the Settlement's long-term RES requirement.

1. 2011 Schools and Government Program

The 2011 Schools and Government Program[19] has received a very high level of interest from schools for participation both in the PBI-based incentive program and in hosting an APS-owned PV system. As of the date of this filing, APS has received a volume of requests that exceed the available program funding. As required by the Settlement, the Company must achieve 50,000 MWh of consumption or offset at publically funded K-12 school facilities[20] within 36 months of the Commission Decision, resulting in a deadline of January 31, 2014. In addition, the program was designed to include approximately 12,000 MWh of energy or offset consumption on government facilities.

Based on feedback from industry stakeholders and observations from applications submitted during the first year of the program, APS is proposing changes to the Project Ranking Matrix to better evaluate a school's economic status. Many schools were receiving the same score on the matrix and the Company believes this is due to the criteria ranges being too broad. For example, the majority of schools in Arizona have between $4,000 and $8,000 in available Class B bonds per student and APS's Project Ranking Matrix provides the same points for any school within this range. All other application and eligibility requirements for third party installations and hosts for APS-owned systems in the 2011 APS Solar for Schools and Government program remain as originally approved. Attachment 1 to this Plan contains the revised Project Ranking Matrix.

[19] Approved in Commission Decision Nos. 72022 (December 10, 2010) and 72174 (February 11, 2011).
[20] Includes publically funded charter schools.

Additionally, based on applications received in the standard non-residential program from school facilities, as well as the strong demand for third-party incentives in the 2011 Schools and Government program, APS is proposing to lower the PBI for PV installations to the levels originally proposed for 2013. The current approved PBI rate for 2012 is $0.145/kWh for the 15-year term and $0.132/kWh for the 20-year term. APS is proposing to adjust these rates in 2012 to $0.123/kWh for the 15-year term and $0.112/kWh for the 20-year term. This lower incentive offering remains higher than the incentives awarded in the standard non-residential program for school and government facilities, and reflects market response demonstrating that school and government facilities no longer need incentives at their current levels to make projects viable for economically challenged districts. By reducing the incentive, APS will also be able to fund more projects during a nomination period.

Consistent with the Commission's approval of the program and the modifications made in the Decision, the third-party incentive offering will be increased by $66 million in lifetime commitments. Of the $66 million of additional lifetime commitments, $53 million will be allocated for projects at school facilities and the remaining $13 million will be available for government facilities.

2. Flagstaff Community Power Project

The Community Power Project - Flagstaff Pilot ("Community Power Project") was approved by the Commission in April of 2010.[21] This Decision authorized APS to install up to 600 kW of residential DE and 400 kW of non-residential DE. APS witnessed an extremely high level of demand among customers, with approximately 20 percent of the study area submitting applications to host a system through this program. However, only about 25 percent of those that applied were able to install a system through the program. Contributing factors include suitability of the customer home when considering shading, roof orientation and structural limitations. Based on the current installation rate, APS expects to have a total installed capacity of 425 kW to 475 kW for residential systems and 400 kW for commercial systems. In addition, as described in the program overview, APS will install a 500 kW ground mounted system located at the Doney Park Renewable Energy Site. Full deployment of the pilot program is expected to be complete by December 2011. APS will maintain ownership of all facilities[22] with the exception of the solar water heaters ("SWH"), which will be provided to low-income customers who will own the systems.

As described in previous Plans and referenced in Exhibit 4E, this program was initially funded with RES rollover funds from previous budget years. Revenue requirements associated with APS's capital expenditures for installations deployed through the program have also been funded through the RES adjustor. As part of APS's 2012 Rate Case, the Company has requested that cost recovery for the capital expenditures for the Community Power Project be removed from the RES adjustor and placed into base rates.

3. 2008 DE Request for Proposal

As described below, APS signed three contracts as a result of its 2008 DE RFP.

---

[21] Decision No. 71646 (April 14, 2010).

[22] Decision No. 71646 established a 120-day window for third-party vendors to sell customer-owned systems to be included in the pilot program. During this window, APS received eight applications, six of which did not meet the minimum technical qualifications and two of which were not pursued by either the customer or the vendor.

In 2010, APS entered into a Distributed Renewable Energy Customer Procurement Agreement in which 25,000 MWh will be developed each year with a contract requirement of 75,000 MWh at full deployment. This program will begin in late 2011 with 25,000 MWh of energy expected in the first full year (2012), and will add 25,000 MWh increments of energy in both the second (2013) and third years (2014) of the agreement.

On February 8, 2010, APS executed an agreement under the Renewable Energy Credit and Energy Contract Model with Freeport-McMoRan ("Freeport") and Recurrent Energy as a result of the DE RFP. Construction for the 15 MW photovoltaic system at Freeport's Bagdad mine in Bagdad, Arizona began in January 2011. The system is expected to produce approximately 30,000 MWh annually for 25 years. The estimated in-service date for this photovoltaic system is April 2012. The electric service agreement associated with this contract was approved in Commission Decision No. 71958.

In 2010, APS signed a contract with SOLON and Deer Valley Unified School District ("DVUSD") as result of the DE RFP. SOLON and DVUSD entered into a partnership under the agreement to allow SOLON to install up to five (5) MW of photovoltaic panels on five separate schools within the DVUSD. Based on the terms of the agreement, DVUSD will provide APS the RECs in return for a fixed PBI payment for 20 years. In December of 2010, DVUSD installed its first one (1) MW PV system. The project includes 4,464 panels on nine buildings and two shade structures and is expected to produce approximately 1,520 MWh annually. Based on the terms of the agreement, SOLON and DVUSD will install up to an additional four (4) MW by December 2013.

4. Innovative Technologies

Commission Decision No. 72022 approved APS's Innovative Technologies program which seeks to procure renewable resource installations designed to demonstrate innovative deployment opportunities and innovative technologies. The Company was authorized to commit $25 million from the approved lifetime commitments authorization from the 2008 DE RFP to fund innovative renewable energy projects. The Innovative Renewable Technologies Project is designed to facilitate the development of early commercial technologies such as (but not limited to) building integrated photovoltaic and concentrating PV technologies by eliminating the historic barriers to entry, such as the need for extended production history and established production data, and providing an incentive that is optimized for the proposed project.

During the second half of 2011, APS will issue a Funding Opportunity Announcement ("FOA") for the Innovative Renewable Technologies Project. The solicitation will seek turn-key projects for renewable resources, including wind, photovoltaic, and solar thermal technologies. Proposed projects will be evaluated by a panel of stakeholders, including representatives from APS, academia and industry technologists. APS anticipates these projects will begin construction in 2012.

IV. ADDITIONAL RENEWABLE ENERGY FOR 2012 RES COMPLIANCE

This section describes renewable energy resources needed in addition to existing projects and those expected to be in-service by the end of 2011 in order to meet the 2012 RES compliance requirements.

A. Renewable Generation Projects

By year end 2011, APS expects to have over 390 MW of RG in operation. While the Company will continue to bring projects on line between 2012 and 2015, no new additional RG procurement is needed in order to achieve RES compliance in 2012. However, APS will need to continue to develop additional RG between 2012 and 2015 to achieve the requirements set forth in the Company's Settlement, as described in Section V.

B. Customer-Sited Projects

The RES requires that APS satisfy a percentage of the annual renewable energy requirement through the addition of DE resources. The required DE percentage increases to 30 percent of the total RES requirement in 2012 and remains at that level each subsequent year.[23]

Since approval of APS's first Plan in 2008, the Company has gained considerable experience and understanding of the opportunities and challenges associated with the deployment of DE at the scale required under the RES. As of June 2011, the Company is on pace to exceed the 2011 DE requirements and expects to achieve about 113 percent of compliance for its residential DE program and about 189 percent for its non-residential DE program.

Given this level of program performance, this Plan offers three options for continuation of the residential DE incentive-based program. These options are directly tied to the overall options presented in Table 1 of this Plan (i.e. Option 1 in Table 3 below is a subset of Option 1 presented in Table 1). Each of the proposed DE incentive budget options and funding levels described in the Plan are intended to allow APS to meet or exceed both the residential and non-residential DE requirements for the full five years of this planning period.

1. Residential Program

Table 3. APS's Proposed 2012 Residential DE Budget Options

	Option 1	Option 2	Option 3
Residential DE Program			
Expected Capacity	17 MW	26 MW	34 MW
2012 Budget	$20 M	$30 M	$40 M
Percent of 2012 Requirement	100%	109%	119%

APS will continue incentive funding level step-downs consistent with Decision Nos. 72022 and 72174, with the 2012 incentive level for residential PV grid-tied incentive beginning at $1.30 (Step 4) and continuing the approved market-driven triggers for future incentive decreases. APS believes the incentive thresholds and approved method for ongoing

[23] A.A.C. R14-2-1805(B).

incentive reductions have proven to be effective in meeting the residential DE requirement and supporting the increased levels of customer participation in the program throughout the year while simultaneously reducing the incentives required to drive customer participation.

Option 1 provides a sufficient incentive budget for APS to meet its residential RES requirement in 2012, funding only the amount of projects necessary to build upon the amount of residential DE the Company is expected to have on line by the end of 2011 to reach the 2012 requirement. Option 2 proposes a total residential incentive budget of approximately $30 million in 2012 and would provide the market an opportunity to install approximately the same number of systems as in 2011 based on the average incentive level of $1.25/watt throughout 2012. Option 3 includes a $40 million residential DE incentive budget for Commission consideration and would result in APS exceeding the 2012 residential requirement by approximately 20 percent, or over 28,000 MWh.

Following the same methodology used in 2011, the Company would allocate $3 million for the $1.00/watt Rapid Reservation program,[24] 15 percent for non-PV technology applications and $2.6 million for the ENERGY STAR® Plus Solar Homes Program. These allocations are the same for all three options and are subtracted from the total residential incentive budget, with the remaining funds spread out evenly among the four funding quarters (e.g. 25 percent of the remaining budget allocated per quarter).

Consistent with the Company's 2011 Plan, the Rapid Reservation incentive requests will not count against the funding cap per funding quarter. Throughout a funding quarter, APS will confirm all grid-tied PV applications that request $1.00 per watt, effectively foregoing placement in the reservation queue. The Company recognizes that the $1.00 per watt incentive level may need to be re-evaluated and adjusted accordingly in future years of the program.

Table 4. Residential Photovoltaic Incentive Funding Quarters and Incentive Reduction Triggers[25]

	Funding Quarter 1 Jan. 1–Mar. 31	Funding Quarter 2 Apr. 1–Jun. 30	Funding Quarter 3 Jul. 1–Sept. 30	Funding Quarter 4 Oct. 1–Dec. 31
Annual RES Residential Incentive Budget	**25%**	**25%**	**25%**	**25%**
Incentive Step Trigger	**50% of annual budget on or before June 30**		**75% of annual budget on or before Sept. 30**	**100% of annual budget on or before Dec. 31**

Incentive reductions will only occur if demand exceeds available funding during or beyond a particular funding period. If demand falters no incentive reduction will be triggered. Incentive Steps are defined in the table below. Funding Quarters of 2012 will begin at Step 4 ($1.30/watt) as shown in Table 5 below.

[24] Based on the demand experienced in 2011 to date, APS is requesting to increase the Rapid Reservation from $2.5 million to $3 million in 2012.
[25] Decision No. 72022 (December 10, 2010).

Table 5. Residential Photovoltaic Incentive Declination Steps[26]

APS Photovoltaic Incentive Reduction Steps ($/watt)*									
Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10
$1.75	$1.60	$1.45	$1.30	$1.20	$1.10	$1.00	$0.95	$0.90	$0.85

*Steps 1 through 3 occurred in 2011. Step 4 will begin on January 1, 2012.

To assist in communication with customers, incentive reductions will be posted on the www.aps.com and www.arizonagoessolar.org websites and will show the number of applications remaining in each Funding Quarter that is currently open for applications. APS will communicate the pending incentive reductions in terms of both available budget and the approximate number of available applications, which will be derived from the predetermined budget available for each incentive level. In this way, the budget will define the Funding Quarter thresholds, and APS will communicate the Funding Quarter in terms of available applications.

In addition to the residential PV incentive beginning at $1.30/watt, APS is proposing that the geothermal incentive decrease from $0.90/kWh to $0.80/kWh. All other residential DE technologies will receive the previously planned incentive reduction in 2011. Those planned reductions were designed by the Uniform Credit Purchase Program ("UCPP") working group, modified based on program performance, and approved by the Commission in Decision No. 72022 in an attempt to reflect the anticipation that DE technologies will decline in cost as market penetration and product availability increase.

Residential UFIs are available for PV systems up to 25 kWdc. Residential non-PV technologies are eligible for UFIs up to a total of $50,000 for each installation. Larger residential DE systems may be installed by the customer consistent with other program limitations, but will not be eligible for incentives for the fraction above the UFI incentive limit.

2. Non-Residential Program

APS expects to exceed the non-residential DE compliance target in 2012 and for all five years covered by this Plan based on the following factors:

- An increased number of installed projects resulting from APS's non-residential DE program through the first half of 2011;
- Additional customer incentive commitments made in 2011;
- Commission approved budget available to make additional customer incentive commitments; and
- Contract commitments tied to the 2008 DE RFP.

Therefore, no additional non-residential DE installations are needed for APS to achieve compliance with its non-residential program in 2012 or any other year of this Plan. However, the Company is proposing three options in Section V of the Plan to assist APS in achieving its Settlement requirement in 2015. Two of the three options include continued expansion of APS's non-residential program between 2012 and 2014.

[26] *Id.*

3. Integrated Energy Pilot Program

On June 1, 2011, APS filed its Demand Side Management Implementation Plan for 2012, which included the Company's proposed Integrated Energy Pilot ("Pilot").[27] In this Plan, APS is addressing the renewable energy components of the Pilot. The Pilot is a two-year program that explores the coordinated integration of utility smart grid technologies and customer offerings; energy efficiency ("EE"), renewable energy ("RE"), and demand response ("DR"). The proposed Pilot offers customers served by APS's Pioneer Substation[28] opportunities for managing energy costs by encouraging customers to install corresponding measures from different APS programs in an effort to deliver more total energy savings.

All Pilot customers will initially be offered access to an Energy Advisor and an enhanced residential energy audit that will provide them with cost and payback data to assist them in making their energy upgrade decisions.[29] Additionally, up to 100 Pilot customers will have access to incentives for installing grid-tied PV while additionally receiving an APS-owned smart inverter and a suite of "Smart Home" technologies. APS ownership of the inverter will allow the Company to evaluate various communication alternatives, collect data to align system requirements with DE components, evaluate increasing opportunities to provide customers with information about system operation and seek to understand the long-term role of inverters in distribution system optimization.

This integrated offering provides APS with the opportunity to study the most effective way to deploy smart technologies into APS's existing grid infrastructure and leverage them for their desired benefits. The Company will also study the effects of these evolving technologies and high PV penetration on the distribution grid, and will gather production and consumption data for each technology. Various communication platforms and protocols will also be studied to determine the benefits and considerations for future deployment. Observations from this study will be further leveraged towards the development of the Company's micro-grid efforts. Additionally, by integrating the solar production information with meter data and a smart thermostat, APS expects to see a measurable reduction in both energy consumption as well as peak demand, ultimately better aligning the attributes of solar DE with consumption.

APS is seeking to collect program costs associated with the DE component of the offering, including incentives for PV systems, system integration costs, project management, and the revenue requirement associated with the APS-owned invertors through the RES adjustor. The Company plans to use the same model as was approved for the Community Power Project for the revenue requirement collection associated with the capital deployment portion of the budget. Energy efficiency costs would be recovered through the Demand Side Management Adjustment Charge ("DSMAC"). The costs of the proposed Pilot, which are outlined in Exhibit 2A, include both the RES components as well as those proposed to be collected through the DSMAC.

---

[27] APS was ordered to develop an integrated renewable energy and energy efficiency pilot program in Decision No. 72060 (January 6, 2011). As discussed in that Decision, the project is to be focused in a bounded territory and will build on the Company's experience with the Community Power Project.

[28] APS's Pioneer Substation is located near I-17 and Carefree Highway in North Phoenix, and several of the Company's utility smart grid technologies are planned for deployment in that area. There are approximately 3,500 residential customers as well as a mix of approximately 600 commercial and industrial customers in the proposed Pilot project area.

[29] For further details on the Company's enhanced residential energy audit offering, please see the Company's 2012 Demand Side Management Implementation Plan, filed in Docket No. E-01345A-11-0232.

4. DE Program Enhancements

Within the last few years, APS has seen a significant increase in the number of leased residential solar systems installed by customers through its DE programs. While APS believes that leases provide a valuable option for customers to consider in adopting renewable energy, leases also introduce a variety of complexities into program administration. Issues include timely identification of system ownership, uniquely tailored program processes and documentation, and accommodations within APS's on-line incentive management application.

Further, as DE is better understood by market participants and lending institutions, additional program areas will require adaptation. For example, beginning in October 2010, APS was required to issue the Internal Revenue Service Form 1099 to residential customers acquiring DE systems using APS incentives. This change required numerous process and administrative revisions. Recently, homebuilders providing DE systems in new homes have started recording leases and APS program requirements to ensure any future homeowner is fully informed of the obligations of system ownership.

APS believes these and other considerations warrant monitoring in an effort to ensure customers continue to operate systems incented through APS programs, and that RECs from those systems are rightfully owned by the system owners and transferred to APS as required through the program incentive agreement. Through APS's system monitoring initiatives, clear contracts and communications, and administrative rigor, the Company believes it will be well positioned to advise the Commission on reasonable approaches for DE program administration. The Company also realizes that in many respects, DE programs represent a Commission policy direction, and to that end will look to Commission leadership on DE matters.

The following are DE program enhancements APS is currently pursuing, some of which will help facilitate the tracking and monitoring of systems installed through these programs.

a. Meter Installations on Residential and Non-Residential PV Systems

APS has identified the need to more closely monitor the output from all PV systems installed in the Company's service territory. Currently, APS installs a production meter on all non-residential PV systems participating in its PBI program and on all APS owned systems. In addition to providing information important for system operation and energy planning, these meters provide the opportunity to identify anomalies in system production.

The Company plans to install production meters on all residential and non-residential UFI PV installations. Beginning in 2012, APS plans to deploy these production meters on both new installations and incrementally on all previously installed customer-sited systems. The data from these meters will provide APS with the actual production from all residential and non-residential PV systems installed on its system. This will improve planning and operations of the larger electrical system. In addition, this will allow for production reporting based on increased data.

The installation of these meters will require enhancements to APS's Renewable Program Management system ("RPM") and Customer Information System

("CIS") to accommodate the tracking of current PV installations and measurement of production levels of the newly installed systems. The Company plans to use the same model as was approved for the Community Power Project for revenue requirement collection.

APS will report to the Commission and stakeholders in its next RES Compliance Report on the progress of the installation of the production meters and the data that is collected.

b. Security Deposits

Decision No. 72022 required APS to file a refundable reservation fee or security deposit proposal for its non-residential PBI program for Commission consideration. In APS's compliance filing, the Company stated that it would include a proposal as part of its 2012 RES Plan.[30]

Under APS's proposal, once an initial reservation is granted to a non-residential PBI project, the Customer or System Installer[31] (the "Applicant") would subsequently be required to pay a Reservation Deposit in order to retain its PBI reservation. A Conditional Reservation will be granted to the Applicant when the initial PBI project application is approved by APS. Within seven business days of the issuance of the Conditional Reservation, the Applicant would be required to submit a Reservation Deposit to APS equivalent to five percent of the total lifetime PBI commitment request for the reserved project. For example, the deposit amount required for a PBI project with a lifetime commitment totaling $500,000 would be $10,000 ($500,000 x 0.05). If the full Reservation Deposit is not received by the Company within the seven business day timeframe, the Conditional Reservation would be cancelled. Those funds would then be awarded to the next ranked project(s), according to APS's PBI ranking calculator, within the category in which the funds originated (medium or large PBI). APS would repeat this process until all funds are exhausted or until the end of the funding cycle, whichever occurs first.

Once a project is successfully installed, has passed inspection, and all necessary paperwork has been submitted to APS, the Reservation Deposit will be refunded to the Applicant. Should a project be terminated at any time by the Customer or APS consistent with defined agreements and milestones, the Reservation Deposit will be credited towards the RES in the manner described in APS's proposed RES Adjustment Schedule Plan of Administration (see Exhibit I to this Application).

c. Signed Contract Requirement for Residential PV Applications

In 2012, APS will require that all applications for its residential UFI program include an executed contract between the customer and solar installer/developer and complete technical specifications for the projects. Additionally, for leased systems, APS will require that a signed lease agreement by the lessor be submitted along with the customer's application. The Company believes that this enhancement will allow APS to award reservations in a more timely manner, and

[30] Filed January 28, 2011 in Docket Nos. E-01345A-10-0262 and E-01345A-10-0166.
[31] The party that submitted the original application is responsible for submitting the reservation deposit to APS.

will serve to continue to decrease the number of projects receiving reservations that do not result in system installations under the residential program.

d. Changes to the Distributed Energy Administration Plan

In addition to the meter installations on residential and non-residential PV systems, security deposits and a signed contract requirement for residential PV applications, APS has made some modifications and clarifications to its DEAP that are designed to improve the customer reservation process and enhance information provided for APS's reporting. These changes include:

- As a result of Decision No. 72022, the DEAP now reflects that all applications for its non-residential PBI program include a complete executed contract between the customer and solar installer/developer and technical specifications for the project.

- To remain consistent with the incentive adjustments for renewable technologies, APS is decreasing its incentive for residential geothermal applications from $0.90/kWh to $0.80/kWh.

- APS has identified a need to maintain a record of ownership of a renewable energy system through its residential DE incentive program. As a result, the Company developed additional documentation that must be submitted along with a customer's application to receive an incentive for leased PV and leased solar water heating systems. On June 7, 2011, APS hosted a stakeholder meeting to discuss these new documents with installers and developers. These documents are available on the Company's website.[32]

- APS is expanding the requirement to submit a Form W-9 to all customers who receive an incentive through the Company's renewable energy incentive program. The owner of the system is considered the party responsible for submitting the Form W-9, which may be either the customer or the lessor for leased systems. This requirement is for both residential and non-residential system installations.

- Through APS's implementation of a standard SWH inspection program in 2011, the Company has observed a need for an incentive prorate calculator. The placement of the solar collector panels will affect the energy savings that a SWH system will realize. For example, the Operating Guidelines-300 rating is based on panels being in an optimal location with sufficient tilt and facing due south. Therefore, to allow for installs that are not optimally installed, APS proposes to reduce the incentive to account for the anticipated reduced energy savings. These prorated calculations are stated in Table 6 below.

[32] http://www.aps.com/main/green/choice/solar/forms.html

Table 6. APS's SWH Prorated Calculations

Incentive (%)	Tilt (in degrees)	Azimuth (in degrees)
0	> 0	0-90
80	0-33	90-150
80	0-17	150-210
100	18-47	150-210
80	48-75	150-210
80	0-33	210-270
0	> 0	270-360

V. EXPANSION NECESSARY TO MEET SETTLEMENT REQUIREMENTS

Sections II, III, and IV of this Plan have described the Company's existing projects and project development under contract with APS. Together, this will allow APS to meet and exceed annual RES requirements in each year from 2012 to 2016. In the Settlement, the Company committed to develop 1,700 GWh of new renewable resources in addition to its 2008 renewable resource commitments, and bring those resources into service by December 31, 2015. Taken together, APS's commitment is approximately 3,400 GWh, or nearly 11 percent of retail sales. This is more than double the overall RES requirement of five percent for that year. To meet this commitment, and accommodate natural project development timelines, APS must commit in 2012 to begin procuring and developing the additional renewable resources to meet the Settlement requirement. Therefore, the Company is seeking approval to procure an additional 300 MW beginning in 2012, so that resources required to meet renewable commitments are in service in 2015. APS proposes to both build and purchase energy projects, as well as draw from continued customer participation in DE projects to achieve this objective.

APS proposes a two-part strategy to procure the additional 300 MW:

- 50 percent or 150 MW as customer or third-party financed projects through purchased power agreements including the potential for expansion of existing incentive programs; and

- 50 percent or 150 MW as utility-owned projects procured through an expansion of the AZ Sun Program and the Schools and Government Program, as well as additional DE projects to be proposed as part of APS's 2013 Plan.

APS endorses this multi-faceted approach as it provides customers with a variety of benefits that no single source program can provide. These include the near-term lower costs of third-party financed projects, the ability to own renewable energy resources through an incentive program, and the ability to benefit from lower lifetime costs under utility ownership of resources through projects such as the AZ Sun Program, the Schools and Government Program, and the Community Power Project.

A. Third-Party Financed Projects—Power Purchase Agreements and Customer-Sited Projects

APS has noted in prior Plans that future PPA solicitations will be required to achieve the Settlement requirements. The Company remains committed to soliciting and contracting for purchased power in the next several years and proposes three scenarios for the amount of capacity that would be obtained through PPAs as described below. In each case, the amount of capacity varies in connection with the amount of capacity obtained through customer incentive programs for additional DE resources, always totaling 150 MW in combination.

As noted in Section IV, the amount of non-residential installations and approved budget for contract commitments exceed the amount of energy required to be generated to meet the non-residential DE requirement in all five years of this Plan. Acknowledging that customers and developers are accustomed to the availability of incentives for Small, Medium, and Large projects as defined in the DEAP, APS believes that the elimination of funding for all of these project categories would represent a significant policy change for regulators and industry. Therefore, APS is proposing three incentive funding options to compliment the

proposed PPA scenarios, outlined in Table 7 below, each of which would result in the additional 150 MW of capacity needed for Settlement requirements.

Table 7. APS's Proposed 2012 — 2016 Options to Achieve Settlement in 2015

	Option 1	Option 2	Option 3
Renewable Generation – Third Party Financed/PPAs			
Expected Capacity	150 MW	125 MW	100 MW
2012 Budget	$0 M	$0 M	$0 M
2012 – 2016 Budget	$15.5 M	$13.0 M	$8.9 M
Distributed Energy – Non-Residential Program			
Expected Capacity	0 MW	25 MW	50 MW
2012 Budget	$0	$2.1 M	$2.3 M
2012 – 2016 Budget	$0	$21.6 M	$34.1 M
Annual UFI Budget	$0	$2 M	$2 M
PBI Lifetime Commitment	$0	$30 M	$60M

Each of the three proposed options anticipates additional capacity resulting from PPAs to come online by 2015. For 2012 no additional funding is needed for PPAs because APS will plan to issue solicitations beginning in 2012, with projects anticipated to be in service between 2014 and 2015. Therefore, since none of the additional capacity will come on line in 2012, there is no budget associated with procuring the 150 MW in 2012. This budget and expected capacity includes the projected capacity resulting from the Company's planned 2012 Small Generator Standard Offer solicitation, expected to be issued in 2012. This solicitation will serve as the last in a series of three solicitations that define the Company's Small Generator Standard Offer program, previously approved by the Commission in Decision No. 72022.

The renewable resources contemplated under this Plan are consistent with APS's short and long-term planning goals and resource acquisition plans described in the Company's 2009 Integrated Resource Plan,[33] and as described in stakeholder meetings.

Based on requirements of the Settlement, the Company has recently filed a rate case application which is expected to be adjudicated in 2012, and anticipates it will file another rate case application which would be expected to be adjudicated in 2014. In each of these rate case filings, the Company plans to work with the Commission to remove the revenue requirement for all utility-owned renewable energy projects from the RES adjustor mechanism and capture them in APS base rates.[34] Only projects that are installed and operating would receive this treatment as a result of each respective rate case.

In developing this Plan, APS has attempted to balance its non-residential DE program for purposes of RES compliance, with the interest of providing continued opportunities for customer and industry program participation. APS has developed three options for Commission consideration on this subject as the Company believes the merits of continued non-residential DE resource development are largely a discussion of renewable energy development policy and not specifically RES compliance.

[33] Filed in Docket No. E-10345A-09-0037 (January 29, 2009).
[34] This treatment is consistent with APS's 2012 Rate Case filing (filed June 1, 2011 in Docket No. E-01345A-11-0224), in which APS requested that cost recovery for revenue requirement related to all renewable energy utility-owned projects be moved from the RES adjustor to base rates.

For the non-residential program, Option 1 includes no non-residential program expansion in 2012 or over the next five years, relying on existing projects and approved incentive budgets and lifetime authorizations to allow APS to exceed compliance in each year of the Plan. This option has the effect of no additional costs to the RES program beyond those previously committed through 2011. In Option 2, the Company would continue its non-residential UFI program[35] in 2012 with a budget of $2 million, consistent with the 2011 Plan. In addition, the medium project category[36] would have a lifetime commitment of $10 million in each year between 2012 and 2014, for a total increased PBI lifetime commitment of $30 million. APS expects this budget would result in approximately 25 MW of additional capacity from medium sized projects in the same timeframe. Option 3 proposes continued substantive growth opportunities for the non-residential PBI program, including $2 million budgeted for the non-residential UFI program and an expansion of its non-residential medium and large project categories[37] by an additional $60 million in lifetime commitments, $20 million in each year between 2012 and 2014. APS expects this budget would result in approximately 50 MW of additional capacity from medium and large projects in the same timeframe.

B. Utility-Owned Projects – Expansion of the AZ Sun Program and Schools and Government Program

APS believes a key component of its procurement strategy is the diversification within its RG portfolio to include a mix of both utility ownership and PPA projects. Acquisition of solar resources through utility ownership is consistent with the Company's resource plan and will continue to play an important role in its ability to meet overall RES and Settlement requirements.

APS is proposing to increase the size of its utility ownership program by 150 MW, consisting of 100 MW of utility-scale solar generating facilities (incremental expansion of the currently approved AZ Sun Program) and 25 MW of customer-sited resources, focusing on economically-challenged schools in the metro area and government and municipal facilities as part of the Schools and Government Program, to be in service between 2012 and 2015. APS is proposing that the type of deployment associated with the remaining 25 MW of utility-owned capacity be identified in the Company's 2013 Plan, allowing APS the opportunity to determine the right approach to serve specific market needs as they continue to evolve and work with stakeholders to ensure the approach can be successful.

The expansion of the AZ Sun Program, as proposed, stipulates a capital investment of approximately $475 million to be made beginning in 2012 through 2015 to develop 100 MW of solar generation capacity. This is based on an average solar PV capital cost of $4.75/watt. The cost of the actual systems deployed will be based on competitive procurement processes, and will most likely vary with the size of the system, as smaller size systems tend to be greater on a per watt basis, while larger sized systems cost less due to economies of scale of the individual project. Approval of the program will allow the Company to install these resources quickly and efficiently without adding regulatory filings.

[35] Projects that are less than 30 kWac qualify under the non-residential UFI program.
[36] A medium project is defined as any electricity producing project whose inverter(s) or generator(s) is rated 200 kWac or less, or any project whose lifetime incentive commitment is less than $2.5 million dollars, and does not qualify for an up-front incentive.
[37] A large project is defined as projects larger than 200 kWac and smaller than 2 MW.

The Company's current AZ Sun Program has allowed APS to solicit, contract, and develop utility-scale PV projects in an efficient and cost-effective manner. By year-end 2011, APS expects to have contracted for all 100 MW authorized by the Commission and expects to have the first 45 MW in service. Building upon this model, APS is requesting authorization to develop and build an additional 100 MW of solar PV resources, with projects in service annually beginning in 2013 through 2015.

Through the AZ Sun Program, APS has partnered with leading solar developers and panel manufacturers, such as First Solar, SOLON, SunEdison, LLC and SunPower, LLC to develop utility-scale solar projects. Within nine months of approval of the AZ Sun Program by the Commission, the Company signed contracts to develop five projects totaling 83 MW and within 12 months of approval began construction on its first project. APS believes that there were three key contributors that enabled the Company to develop resources this efficiently. First, up-front approval by the Commission of overall program guidelines allowed development partners to move forward quickly without having to seek regulatory approval of each specific project. This simplified the overall process for the Commission, Commission Staff, APS and its development partners. Second, cost recovery through the RES has allowed APS to finance these projects directly thereby relieving developers of the need to obtain separate project financing, which has been difficult in recent markets. Third, municipalities have embraced solar development and recognized it as a key economic driver for their communities. For example, streamlined permitting processes such as the Gila Bend Solar Field Overlay Zone have created jobs, stimulated economic activity in the community and worked to drive down solar development costs.

In addition to these factors, several market changes have made utility ownership of renewable energy a more important part of APS's procurement strategy. Maturing renewable technologies, challenging financial markets and evolving tax laws have combined to allow the Company to pass along the advantages of owning and operating renewable facilities to its customers. The ability to site resources where they have the most benefit to the APS system, to finance these projects, to more actively control the development of the facilities, and to own, maintain and improve the generation facility for the full life of the plant will result in lower costs and the high level of reliability demanded by APS customers. With these advantages, utility ownership of renewable resources is proving to be an effective element of the Company's overall renewable procurement strategy, which will provide the best long-term value to APS customers and help the Company achieve its 2015 renewable energy goals.

Under the expanded AZ Sun Program, APS would continue to diversify its renewable resource portfolio, capitalizing on the advantages of solar ownership to help meet its customers' demands.

Additionally, APS is seeking to develop 25 MW between 2012 and 2013 and 25 MW between 2014 and 2015 of customer and/or community-sited resources of utility-owned and operated systems. The Company has seen high levels of interest in its current Schools and Government program, with initial applications exceeding APS's entire allocation of 25 percent of total program capacity for schools. Further, government and municipal customers continue to seek options, including hosting an APS-owned system, as part of their consideration of adopting renewable energy. APS proposes to expand its participation in the Schools and Government program in 2012 and 2013 by developing a total of 25 MW of PV, with deployments on economically-challenged schools in metropolitan areas and government and municipal buildings eligible for incentives in the 2011 School and Government program. APS continues to believe that prioritization should be afforded to rural and economically challenged customers in these segments and proposes to serve all

customer eligible through the Settlement designed program. The Company is proposing to revise its Schools and Government Solar Program Rate Schedule (see Exhibit D to this Application) to include this expansion and to adjust the rates to reflect APS's current rates. APS is continuing to explore opportunities to determine the most suitable market segment and business model to deploy the additional 25 MW of utility-owned projects in the 2014 – 2015 timeframe. The Company is seeking to develop additional cost-effective models to serve customers with a desired support of "distributed" solar resources. APS plans to provide additional details on this deployment in its 2013 RES Implementation Plan.

APS requests approval for cost recovery of the revenue requirements associated with these renewable ownership programs (including depreciation expense, property taxes, operating and maintenance expense, and return on both debt and equity using the pre-tax weighted average cost of capital approved in the Company's most recent general rate case) through the RES adjustor until the costs can be reflected in base rates.

VI. CUSTOMER PROGRAM SUPPORT AND EDUCATION

The program support efforts planned for 2012 will enable APS to meet near-term targets and serve to sustain long-term category growth for renewable energy. These initiatives, which are described below, are designed to educate customers and key stakeholders, establish the necessary systems and process required to support DE deployment over the life of the systems, facilitate the process of participating in APS's DE programs, and ensure a positive customer experience among program participants.

Purchasing renewable energy solutions, such as solar panels or a solar water heater, represents a significant investment for customers and is a purchase with which few people have much previous buying experience or familiarity. APS has consistently found through its customer research that consumers look to their energy provider for guidance on system options, potential savings, selecting an installer, the incentives and tax credits available, and ultimately to supporting system integration and operation. To meet these customer needs, APS offers a wide array of programs and tools. These include:

1. Qualified Solar Installer Program

APS plans to continue its Qualified Solar Installer ("QSI") program in 2012. The primary goals of this program are to ensure a consistently high quality of the system installations, to increase overall customer satisfaction with the DE purchase process, and to improve program operating and marketing efficiencies. The program is offered for residential solar electric and solar thermal systems.

APS will also continue to offer cooperative advertising funds to help participants off-set a portion of their advertising costs and ensure consistent messaging among APS and its installers. The 2012 Plan allows installers to receive defined funding from APS for a variety of advertising methods, such as direct mail, magazine or newspaper advertising, and support for their participation in public events, such as home shows and other consumer and business forums. Additionally, APS will provide opportunities for installers to participate in various radio advertising campaigns throughout the year. This partnership helps to ensure consistent messaging about the opportunities, costs and potential savings related to systems installations and operation.

Input from the industry and from customers who have worked with QSIs indicates that this program has been successful in meeting its goals. APS believes that it is essential to continue these efforts in 2012 and throughout the Plan timeframe.

2. Trained Solar Installer Program

Dialogue with industry and local workforce community members identified gaps in local training opportunities for individuals seeking to enter the solar installation market. In response to these needs identified by the community, APS launched the Trained Solar Installer ("TSI") program in 2011. The TSI program is designed to work with workforce agencies and individuals seeking to enter the PV workforce by providing an eight-day, hands-on training that reviews the components of PV installation, including sizing, construction and electrical characteristics. APS believes this program delivers value to its customers by helping to ensure that a local qualified workforce exists to support the sustained growth in solar development.

In 2012, APS intends to expand this program to accommodate training for over 100 individuals seeking to enter the residential PV installation market.

3. APS ENERGY STAR® Plus Solar Homes Program

APS first introduced this program in 2009 and has seen significant growth in builder and customer participation in the program with over 30 new ENERGY STAR® communities in APS's service territory offering solar as a standard home feature. APS believes that integrating solar into new home construction is an effective way to work to drive down the installed costs of solar. APS plans to continue to expand this effort with home builders and consumers in 2012. Based on current economic forecasts, APS anticipates that over 2,700 solar-equipped and solar-ready homes will be built by 2013 as a result of this program.

APS will continue efforts to drive awareness and participation in the Solar Homes program. These include marketing efforts that will target both homebuilders and homebuyers.

4. ArizonaGoesSolar.org Website

APS plans to continue its support of the ArizonaGoesSolar.org website in 2012 and will pursue opportunities to further enhance content and usability of the site. APS will also continue to explore ways in which traffic can be driven to the site given that it represents a unique educational forum for its customers.

5. Arizona Solar Challenge/Arizona SmartPower

Arizona SmartPower is playing a significant role in APS's customer education efforts and in helping customers through the process of considering and often choosing to purchase solar. One of the primary ways in which they have assisted customers is through a program of Solar Challenges. SmartPower will have launched Solar Challenges in more than a dozen Arizona communities by the end of 2011.

In addition, SmartPower provides coaching resources to customers to help them overcome the complexities of going solar. Through their Solar Coaches and program participation ambassadors, SmartPower supports many customers through the evaluation of renewable energy choices. APS has promoted this free service through the Company's website and through bill messaging and has seen tremendous customer interest in and use of this valuable resource.

APS is contracted with SmartPower through 2012 and the Company will continue to partner with SmartPower through the term of the agreement to heighten awareness and use of these resources among its customers.

6. IT Transaction Platform & Customer Tools

The aps.com website plays a critical role in educating customers on their options and can be an excellent tool to drive them to take action. This website offers a wide array of opportunities for customer education. For example, the site includes an easy step-by-step guide to installing PV or a solar water heater, videos with background information on installing solar and customer testimonials from recent buyers, the addition of extensive "Frequently Asked Questions" to help answer common questions, and a variety of educational links and resources.

In addition, the site's functionality has been expanded to increase customers' ability to conduct business with APS on the site. For example, residential customers are able to submit reservation applications online and track a reservation throughout the process. Further, APS deployed a solar calculator to help customers quantify savings potential and calculate payback for PV installations. The solar calculator, the first of its kind, provides customers with a realistic view of the financial benefits of solar based on a customer's actual usage and billing history and helps motivate them to solicit project estimates from contractors.

APS will continue to refine its website and the renewable energy section of the site to educate customers and facilitate the process of customers participating in APS's DE programs.

7. Schools & Government Program

APS recognizes the significant educational opportunity that comes with the deployment of renewable energy technologies in these public institutions. Thousands of students, teachers and parents are exposed to this technology and by supplementing these systems with educational displays, APS can increase awareness and knowledge. Therefore, APS will facilitate the installation of kiosks, monitoring displays, and other appropriate signage as part of a student, employee, and/or general public awareness and educational campaign. The intent will be to educate the target audience on the benefits of the site-specific system and to educate the public on the adoption of DE in their own lives.

VII. MARKETING AND ADVERTISING

APS's marketing efforts for 2012 will build on the 2011 marketing successes and continue to advance several goals, in the most cost-effective manner. These efforts have been designed to reach the maximum number of customers with a specific focus on maintaining the lowest possible budget.

APS will continue to review the effectiveness of its marketing and customer program efforts and the associated budgets throughout the year and into the future. Modifications to APS's strategies, tactics, and budget will be made to address changing market conditions and key lessons learned throughout the implementation process. The proposed annual marketing budget for 2012 - 2016 is detailed in Exhibit 2.

Key proposed marketing efforts for 2012 include:

1. Customer Research

The purpose of customer research is to assess participating customers' satisfaction with the implementation of the incentive program and to identify any needed areas for program or process improvement. Customer satisfaction research is also used for on-going assessment of the participating installers in the QSI program, as APS wants to ensure the quality of the installers to which it is referring customers.

In addition, research is used to help maximize the effectiveness of APS's marketing spend. Specifically, research helps refine the messaging and targeting of the Company's advertising to ensure that the messaging is relevant and compelling to customers and that it reaches the customers most likely to be interested in renewable energy options.

2. Targeted Marketing

To supplement the mass advertising efforts, APS plans to implement various targeted marketing efforts to educate customers on the benefits of adopting renewable energy. These efforts will consist of direct mail and e-mail campaigns that will test and refine messaging, targeting and creative approaches. Assessment will be done to measure the effectiveness of these campaigns by tracking reservations, inquiries to the call center and online visits to the Company's website.

3. Community Outreach Sponsorship

APS will identify opportunities to participate in projects with high customer and public participation levels to increase the awareness and real-world applications of renewable energy. Through these initiatives, APS seeks to improve the awareness and perceived viability of renewable technologies in an effort to increase customer participation in renewable energy solutions for their own homes and businesses.

4. Mass Advertising

APS has successfully used mass advertising, primarily TV and radio, to educate customers regarding the benefits of renewable energy and to help drive participation in the DE incentive program. Planned advertising includes limited amounts of outdoor (billboards) and print (magazine or newspaper) advertising. In addition, APS has established partnerships

with local media outlets, such as Cox Communications, that provide programming options that lend themselves to providing more detailed information than a typical 30 or 60 second ad and are significantly less expensive than traditional TV advertising. Bill inserts will be used throughout the year to create awareness of the solar options. Information on solar will be included in APS paper and electronic newsletters.

VIII. RENEWABLE RESEARCH, COMMERCIALIZATION AND INTEGRATION

APS is planning an allocation of funds to continue its initiatives for research and study of renewable resources and the integration of these resources. The purpose of this allocation is to enhance the development, deployment, commercialization, and utilization of renewable resources for the benefit of APS customers. For 2012, APS proposes an integrated plan and budget and will prioritize projects and funding to support the RES requirements for renewable resources and the increasing amount of renewable resources on the utility systems. Activities undertaken as part of this program are supported either solely by APS or in partnership with other organizations and entities including private industry, Arizona utilities, public research institutions, and government laboratories.

APS's renewable Research, Commercialization and Integration ("RC&I") budget for 2012 was developed in consideration of the Commission's approval of the Company's 2011 RC&I budget and is intended to leverage partnership contributions for on-going study work.

A. Commercialization and Integration Study

APS continues to plan and develop commercialization and integration studies that provide direct value in planning the future direction of renewable energy. In the past two years APS has developed a comprehensive set of studies to address significant challenges for the integration of renewable resources. Some of those studies will or have identified opportunities for additional investigation, while others have provided direct benefit for the effective integration of renewable resources.

This integrated set of studies includes the following continuing work:

1. High Penetrations of Distributed Resources and Impacts on the Distribution System

APS was awarded funding from the Department of Energy in 2010 to study the impacts of high penetrations of renewable resources on the grid and to develop tools to support the reliability of the utilities distribution system under these conditions. This project is being completed along with additional ancillary study projects in association with the Flagstaff Community Power Project and its distribution systems. In 2011 APS completed phase 1 of the project and has received commitments and funding from the DOE for phases 2 through 5, which will be studied in 2012 and 2013. The full study is expected to be complete in 2013.

2. Energy Storage

APS's technical staff is currently planning and developing a distribution level energy storage project to provide APS a better understanding of the issues encountered when operating and controlling an energy storage system connected to the APS grid. This project was initiated in late 2010 with the commitment to a battery technology. Phase 1 of the project will be installed at APS' Eldon Substation in Flagstaff and is expected to be operational third quarter of 2011. Phase 2 of the project will commence in the third quarter of 2012 at the Doney Park Renewable Energy Site in Flagstaff. APS plans to study the abilities of energy storage systems to address the following areas of focus: reducing the effect of short-term variability issues associated with solar PV generation by providing a means of regulation, providing the ability to store and shift energy delivery to help make the load profile more

constant, and to develop a deeper understanding of the cost, control and system opportunities with energy storage.

3. Solar Cost Integration Studies

In 2011, APS initiated plans to develop a comprehensive set of integration studies to address the values, impacts and costs for the integration of high levels of renewable resources on the utilities systems. Building on the work completed in the 2009 RW Beck Study, 2011 PV variability data collection and study, and the integrated Flagstaff studies, APS will be developing a phased set of studies in 2012 to address potential opportunities for the utility along with a comprehensive value/impact analysis of these studies and integration tools.

4. Combined Solar, Plug-In Hybrid Electric Vehicles, Energy Storage Study

In 2012, APS plans to leverage the 2011 installation of the Chase Field solar system along with the addition of small commercial scale energy storage and future plug-in hybrid electric vehicle charging stations to study the synergy and value streams for the charging of electric vehicles from distributed solar renewable resources. This study will provide insights into the value of management strategies for these combined resources and advancing technologies.

5. Solar Water Heating Analysis and Study

The installation of SWH technologies continues to grow, and is broadly believed to be a strong value when considering renewable energy technologies. APS is investigating three broad areas of interest to the utility regarding SWH and its current and future impacts: the load impact of SWH with expanding installations, monitoring to assure continued operations for these systems, and a stronger understanding of the life of various SWH technologies under varying conditions. APS will launch these studies in 2011 and will be continuing this set of study into 2012. To address these issues, APS is developing study plans that will leverage SWH installations in Flagstaff and Phoenix as data collection points for the project and is working to develop this project with other Arizona electric utilities.

B. Research Support and Study

1. Research Funding

In 2012, APS is planning to support activities in renewable energy being undertaken by Arizona universities to continue and support the advancement of renewable technologies in Arizona. APS will leverage its relationships with Arizona universities and will solicit proposals from these schools to support research projects in solar and renewable energy.

2. Electric Power Research Institute

APS plans to continue its collaboration with the Electric Power Research Institute ("EPRI") in 2012. APS' involvement in key EPRI research projects provides an opportunity to work with utility leaders and industry partners across the U.S. in addressing renewable energy, renewable distributed generation and the associated diverse energy issues. Participating in EPRI programs allows APS to be involved with key projects across the U.S. and to leverage

that knowledge base as it relates to the Flagstaff study initiatives. The Company plans to maintain association with the renewable, distributed generation, and concentrating solar programs at EPRI.

IX. COSTS OF THE 2012 RENEWABLE ENERGY STANDARD IMPLEMENTATION PLAN

APS has included three options in this Plan for Commission consideration. Each option included in this Plan will allow APS to meet or exceed its individual DE requirements and the Company's overall RES requirement in each year. The inclusion of options for specific APS programs in this Plan results in three distinct total RES program budget scenarios for 2012 – 2016.

The total cost of APS's Plan is comprised of four key cost segments: Renewable Energy in Operation through 2011, Existing Commitments, Additional Renewable Energy for 2012 RES Compliance, and the Expansion Necessary to Meet Settlement Requirements. A summary of the costs of these segments for each of the three options, and the major components for each segment is included in Exhibit 2A.

On June 1, 2011, APS filed its 2012 Rate Case[38] and requested that cost recovery for the revenue requirement for utility-owned projects be removed from the RES adjustor into base rates. Consistent with this filing and pending Commission approval, the Company plans to reset the RES adjustor once the Rate Case is completed. If the Rate Case is completed in 2012, this adjustment will decrease the RES adjustor in 2012.

As part of this Plan, APS has proposed a Plan of Administration for Adjustment Schedule RES (the "POA"). The POA sets forth the allowable costs and revenues to be included in the RES adjustor, provides for a balancing account which will record any over or under collection through the adjustor for inclusion in the following year's adjustor charge, and outlines the calculations utilized to determine the annual RES adjustor rate and surcharge limits (see Exhibit I to this Application for the proposed POA).

The procurement strategies and budget assumptions for each year of the Plan are intended to allow APS to meet or exceed both the RES requirements and the elevated requirements set forth in APS's Settlement. APS's plan for obtaining additional renewable energy resources to meet the Settlement requirements gives consideration to both short and long-term customer costs. The Company has demonstrated that long-term customer costs are lower when APS finances and owns renewable energy projects, providing certainty in both cost and delivery of energy through the full life of the system, whereas projects obtained through the PPA model present uncertainty after the term of the agreement which may lead to higher costs to replace the capacity. These factors have contributed to APS's proposal in this Plan to meet the Settlement renewable energy requirement through a blend of APS and third-party owned resources.

Consistent with the cost recovery established in the Settlement,[39] the Commission authorized the Company to recover the revenue requirements associated with APS's renewable ownership programs (including depreciation expense, property taxes, operating and maintenance expense, and return on both debt and equity using the pre-tax weighted average cost of capital approved in the Company's most recent general rate case) through the RES adjustor until the costs can be reflected in base rates. Additionally, the RES funding is intended to cover the cost of utility-scale RG in excess of the cost of conventional resource alternatives, incentive payments for DE resources, marketing expenses, and program implementation and administration costs. The costs for RG are based on APS's most current insights into that market. The costs for DE incentives and the program budget

[38] Docket No. E-01345A-11-0224.
[39] Settlement Agreement paragraph 15.7.

are based on incentives developed as part of both Commission and APS hosted stakeholder workshops, and include APS's best estimates of market uptake for the various technologies available to consumers.

It is important to note that the total cost of renewable energy generation is not entirely reflected within the RES. The cost associated with a renewable PPA contract is collected through two rate mechanisms: the PSA and Adjustment Schedule RES (the "RES adjustor"). After a renewable PPA is executed, the portion of total cost that is comparable to conventional generation cost (the "at market" cost) is collected through the PSA, while the "above market" portion is collected through the RES adjustor. The costs that are reflected in the RES Implementation Plan represent only the "above market" costs. Therefore, PPA costs recovered through the RES adjustor represents only a fraction of total contract cost.

APS's RES adjustor for 2012 will be determined by the budget option in Table 8 that is selected by the Commission.

Table 8. APS's Proposed 2012 – 2016 Budget Options[40]

	Option 1	Option 2	Option 3
2012 Budget	**$129.2 M**	**$141.2 M**	**$151.5 M**
2012 – 2016 Budget	**$783.1 M**	**$810.2 M**	**$873.8 M**
RES Adjustor per kWh	**$0.013586**	**$0.014907**	**$0.016037**
Residential Cap	**$5.43**	**$5.96**	**$6.41**
Non-Residential (under 3 MW) cap	**$201.84**	**$221.47**	**$238.27**
Non-Residential (3 MW and over) cap	**$605.53**	**$664.40**	**$714.81**

[40] Refer to Exhibit 2A for a more detailed breakout of the budget options.

EXHIBIT 1

RES Plan and Program Summary

APS Renewable Energy Standard Implementation Plan for 2012-2016

Exhibit 1A summarizes the RES Implementation Plan objectives and outcomes.

Exhibit 1B outlines the annual APS renewable energy targets by renewable generation and distributed energy, anticipated needs, and summarizes the proposed budget.

Exhibit 1C is a graphic representation of the renewable generation and distributed energy components of the RES portfolio for 2012 through 2016.

Exhibit 1D is a detailed graphic representation of the residential distributed energy component of the RES portfolio for 2012 through 2016.

Exhibit 1E is a detailed graphic representation of the non-residential distributed energy component of the RES portfolio for 2012 through 2016.

Exhibit 1A: APS RES Implementation Plan 2012 Overview

2012 RES IP Objectives	> Funding necessary for existing program and contract commitments > Budget required to achieve compliance with the 2012 RES rules > Program approvals necessary to achieve 2009 Settlement Agreement requirement

2012 RES Expected Production	RES Requirement (in MWh)	Option 1 MWh	Option 2 MWh	Option 3 MWh
Total RG Production	690,475	1,207,185	1,207,185	1,207,185
DE Production:				
Residential DE	147,959	148,861	162,827	177,187
Non-residential DE	118,367	151,182	154,235	164,223
Wholesale DE	29,592	42,360	42,360	42,360
Total DE Production	295,918	342,403	359,422	383,770
Less Green Choice Sales		*(150,000)*	*(150,000)*	*(150,000)*
	986,393	**1,399,588**	**1,416,607**	**1,440,955**

2012 RES Budget		$M	$M	$M
Base	Renewable Generation	$ 66.9	$ 66.9	$ 66.9
	DE Contracts - Incentives	25.3	25.3	25.3
	Program Costs	15.2	15.2	15.2
	Research, Commercialization, and Integration	1.8	1.8	1.8
Options	Residential DE	20.0	29.9	40.0
	Non-residential DE	-	2.1	2.3
	Renewable Generation [1]	-	-	-
	Total RES Budget	**$ 129.2**	**$ 141.2**	**$ 151.5**

2012 RES Adjustor Rate Schedule & Monthly Caps	2011 RES Adjustor	$/bill	$/bill	$/bill
per kWh	*$ 0.010132*	$ 0.013586	$ 0.014907	$ 0.016037
Residential customer cap	*$ 4.05*	$ 5.43	$ 5.96	$ 6.41
Non-residential (under 3 MW) customer cap	*$ 128.70*	$ 201.84	$ 221.47	$ 238.27
Non-residential (3 MW and over) customer cap	*$ 386.10*	$ 605.53	$ 664.40	$ 714.81

[1] Whereas each option (1-3) does include an amount for renewable generation but in 2012 that amount is equal to zero.

Exhibit 1B: APS 2012 - 2016 RES Program Summary

Line No.	APS RES Targets (MWh)	2012	2013	2014	2015	2016
2	APS Estimated Retail Sales	28,182,659	28,398,617	29,001,086	29,540,571	30,192,571
3	APS RES Target - % of Retail Sales	3.50%	4.00%	4.50%	5.00%	6.00%
4	**APS Total RES Requirement**	**986,393**	**1,135,945**	**1,305,049**	**1,477,029**	**1,811,554**
6	**RES Generation Target**	**690,475**	**795,161**	**913,534**	**1,033,920**	**1,268,088**
8	Distributed Energy % of RES Requirement	30%	30%	30%	30%	30%
9	**Distributed Energy Requirement**	**295,918**	**340,784**	**391,515**	**443,109**	**543,466**
10	Residential Distributed Energy (50%)	147,959	170,392	195,758	221,555	271,733
11	Non-Residential Distributed Energy (40%)	118,367	136,314	156,606	177,244	217,386
12	Wholesale Distributed Energy (10%)	29,592	34,078	39,152	44,311	54,347

Line No.	Renewable Generation (MWh)	2012	2013	2014	2015	2016
16	RES Generation Target	690,475	795,161	913,534	1,033,920	1,268,088
18	Existing/Planned Generation Owned/Contracted	1,207,185	1,655,052	2,451,813	2,581,206	2,602,973
19	*Planned Renewable Generation Option 1* [1]	-	-	-	258,420	258,420
20	*Planned Renewable Generation Option 2* [1]	-	-	-	216,504	216,504
21	*Planned Renewable Generation Option 3* [1]	-	-	-	148,920	148,920
22	Projected Green Power Sales [2]	150,000	150,000	150,000	150,000	150,000
23	Total RES Generation Option 1	1,057,185	1,505,052	2,301,813	2,689,626	2,711,393
24	Total RES Generation Option 2	1,057,185	1,505,052	2,301,813	2,647,710	2,669,477
25	Total RES Generation Option 3	1,057,185	1,505,052	2,301,813	2,580,126	2,601,893
26	**Energy Applied To/(Withdrawn From) APS Bank for RES [3] (line 24 - line 16)**	**366,710**	**709,891**	**1,388,279**	**1,613,790**	**1,401,389**

Line No.	Distributed Energy (MWh)	2012	2013	2014	2015	2016
30	RES Distributed Energy Target	295,918	340,784	391,515	443,109	543,466
32	Estimated Existing Distributed Energy [4]	271,717	334,444	377,465	407,259	406,695
33	*Planned Distributed Energy Option 1* [5]	28,326	50,759	76,125	101,922	152,100
34	*Planned Distributed Energy Option 2* [6]	45,345	90,833	131,217	174,314	219,149
35	*Planned Distributed Energy Option 3* [7]	69,693	151,450	227,040	298,340	352,995
36	Wholesale [8]	42,360	50,721	60,549	64,103	70,112
37	APS Customer Sited Community Solar	13,927	48,540	86,418	108,477	119,506
38	Total Distributed Energy Option 1 [4]	356,330	484,464	600,556	681,760	748,413
39	Total Distributed Energy Option 2 [5]	373,348	524,538	655,649	754,153	815,462
40	Total Distributed Energy Option 3 [6]	397,696	585,155	751,472	878,179	949,308
42	**Energy Applied To/(Withdrawn From) APS Bank for RES [3] (line 39 - line 30)**	**77,430**	**183,754**	**264,134**	**311,044**	**271,996**

Line No.	APS RES Budget Summary ($ MM) [9]	2012	2013	2014	2015	2016
46	Total Renewable Generation	$ 70.1	$ 47.1	$ 105.8	$ 85.5	$ 91.9
47	Total Distributed Energy	$ 37.3	$ 53.1	$ 67.1	$ 55.8	$ 59.2
48	Research, Commercialization, & Integration	$ 1.8	$ 1.5	$ 1.5	$ 1.5	$ 1.5
49	Base RES Program Budget	$ 109.2	$ 101.7	$ 174.4	$ 142.8	$ 152.6
50	Option 1 Addition	$ 20.0	$ 13.7	$ 14.8	$ 21.6	$ 32.3
51	**RES Option 1 Budget (Line 48 + Line 49)**	**$ 129.2**	**$ 115.4**	**$ 189.2**	**$ 164.4**	**$ 184.9**
52	Option 2 Addition	$ 32.0	$ 23.1	$ 19.3	$ 27.0	$ 28.1
53	**RES Option 2 Budget (Line 48 + Line 51)**	**$ 141.2**	**$ 124.8**	**$ 193.7**	**$ 169.8**	**$ 180.7**
54	Option 3 Addition	$ 42.3	$ 39.5	$ 36.8	$ 38.7	$ 35.8
55	**RES Option 3 Budget (Line 48 + Line 53)**	**$ 151.5**	**$ 141.2**	**$ 211.2**	**$ 181.5**	**$ 188.4**

Notes:

[1] Renewable Generation option capacity as described in Exhibit 2B and the 3 series of exhibits.

[2] The Green Choice (Rate Schedules GPS-1, GPS-2, GPS-3, Solar-3) sales are included only for procurement purposes. APS intends to procure enough energy to achieve RES compliance and to provide for Green Power purchased by customers. Green Power sold to customers will not be counted towards RES compliance and the cost of those resources is not included in the Renewable Generation budget (per ACC Decision No. 70313).

[3] Assumes Option 2.

[4] The estimated existing Distributed Energy is the projected DE expected to be in service at the end of 2011 estimated at the time of the filing.

[5] Distributed Energy Option 1 includes residential UFI program expansion to precisely meet RES residential DE compliance only.

[6] Distributed Energy Option 2 includes residential UFI program expansion to meet and slightly exceed RES residential DE compliance as well as a $2M annual expansion of the non-res UFI PBI program expansion and a PBI program expansion for medium sized commercial projects totaling to 25MW over the term of this plan.

[7] Distributed Energy Option 3 includes residential UFI program expansion to meet and exceed RES residential DE compliance as ordered in ACC Decision No. 72022 as well as a $2M annual expansion of the non-res UFI PBI program expansion, 50MW of commercial sized projects over the term of this plan.

[8] This line item is made up of the Distributed Energy portion of the project (Snowflake White Mountain Power) that is split between Renewable Generation (RG) and Wholesale Distributed Energy (DE). The split is based on the amount of the wholesale DE component allowed in a given year.

[9] Assumes rate case adjudication in 2012 and 2014.

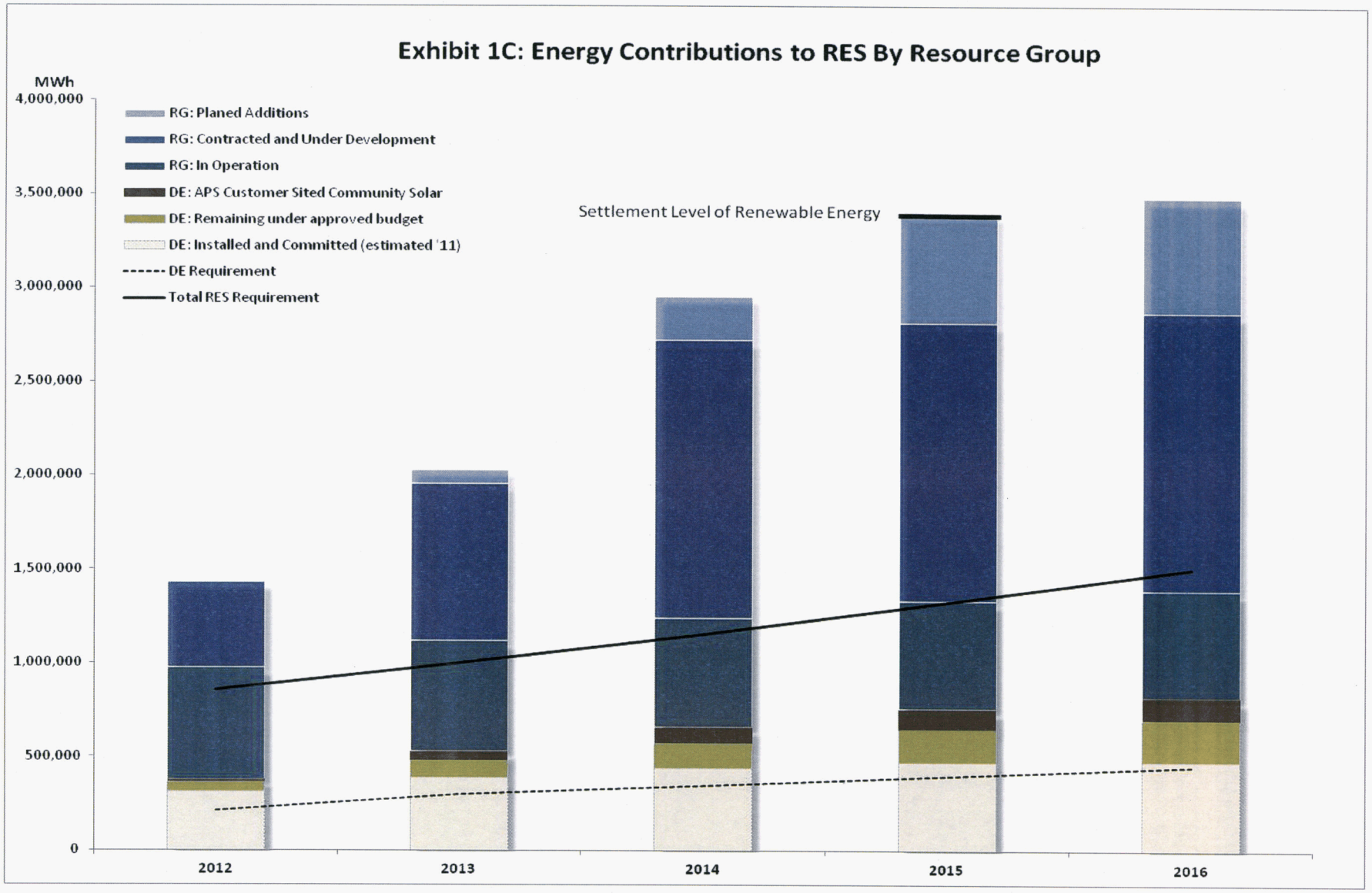


Exhibit 1C: Energy Contributions to RES By Resource Group
MWh
4,000,000
3,500,000
3,000,000
2,500,000
2,000,000
1,500,000
1,000,000
500,000
0
RG: Planed Additions
RG: Contracted and Under Development
RG: In Operation
DE: APS Customer Sited Community Solar
DE: Remaining under approved budget
DE: Installed and Committed (estimated '11)
DE Requirement
Total RES Requirement
Settlement Level of Renewable Energy
2012
2013
2014
2015
2016

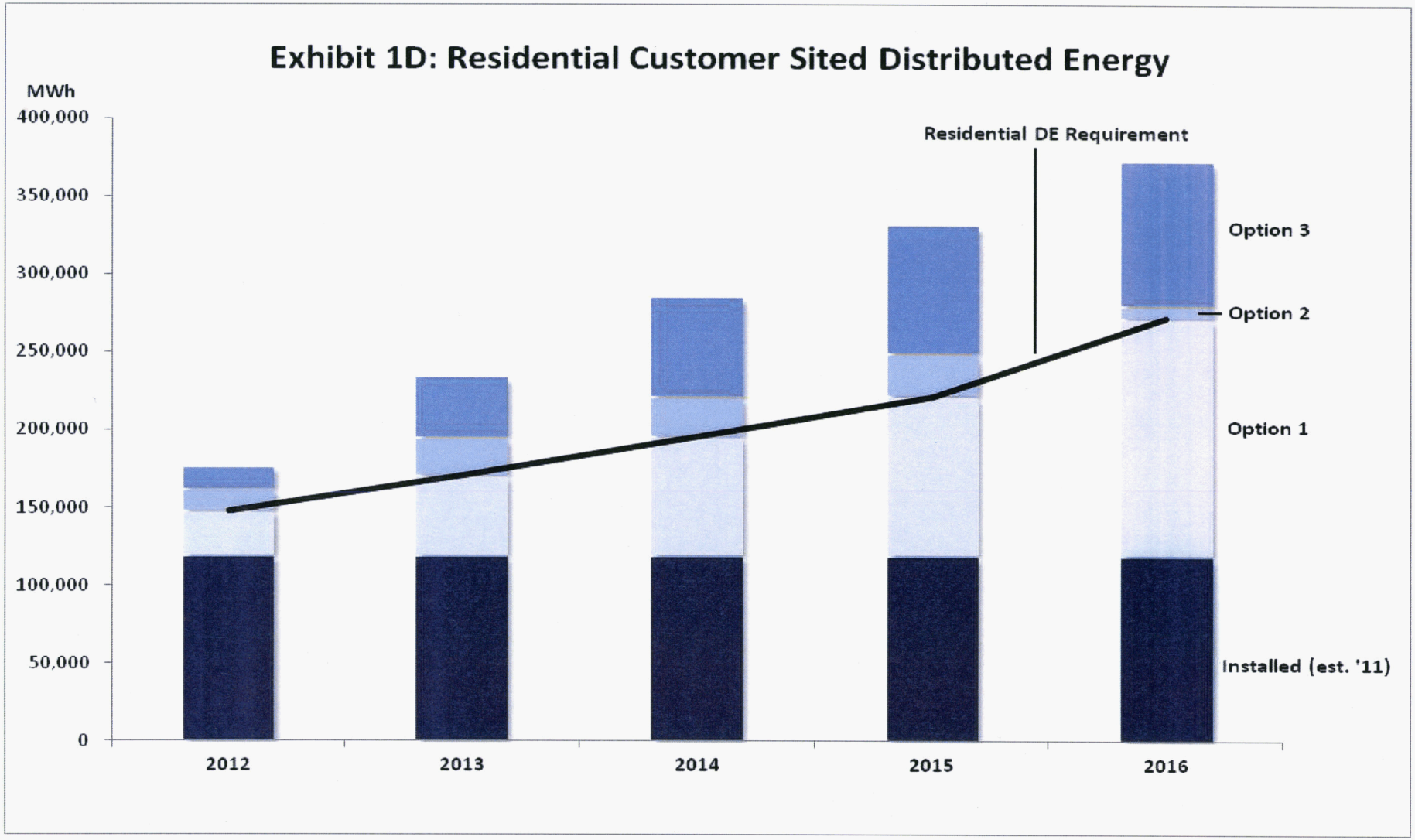


Exhibit 1D: Residential Customer Sited Distributed Energy
MWh
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
Residential DE Requirement
Option 3
Option 2
Option 1
Installed (est. '11)
2012
2013
2014
2015
2016

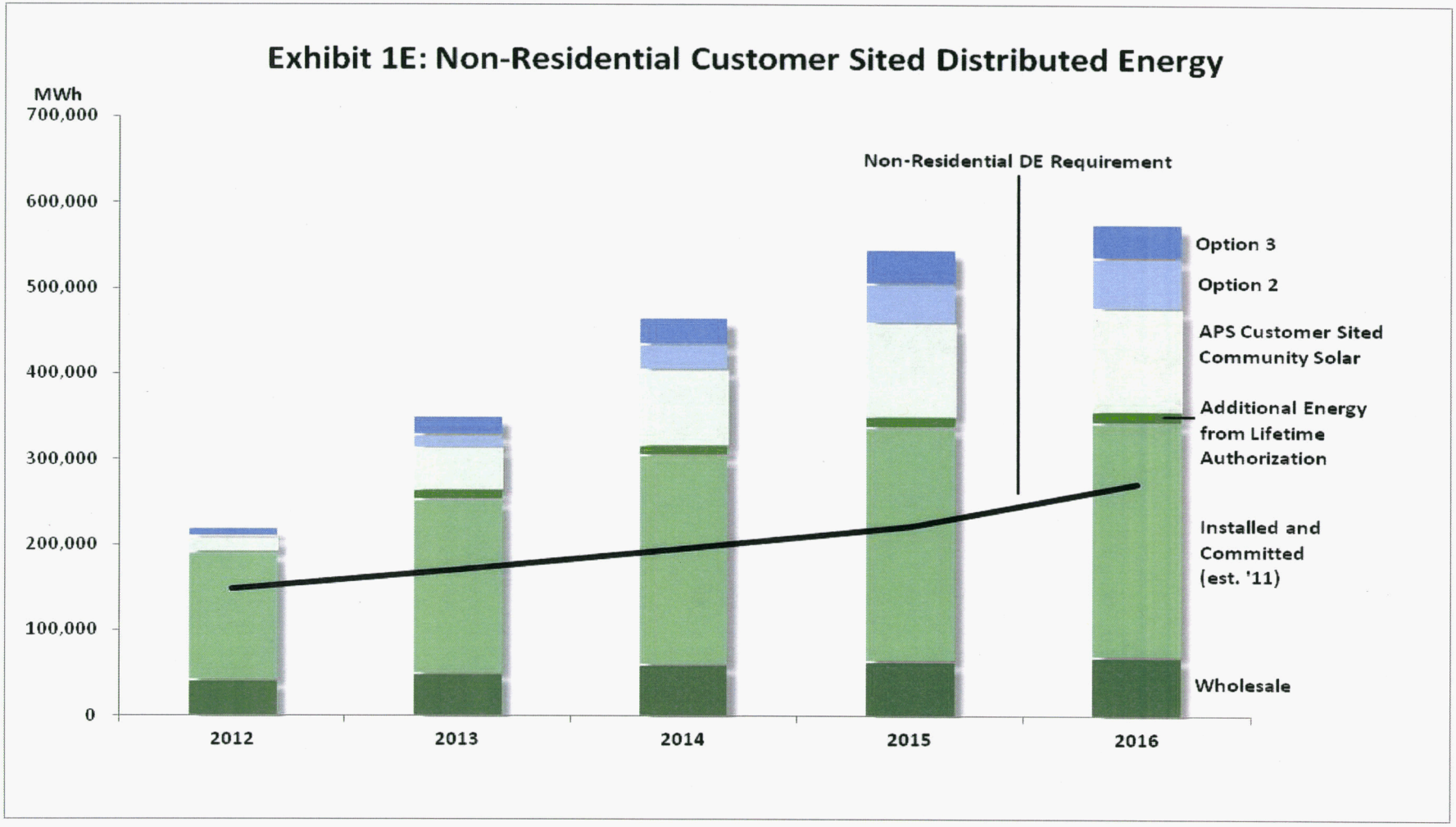


Exhibit 1E: Non-Residential Customer Sited Distributed Energy
MWh
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
2012
2013
2014
2015
2016
Non-Residential DE Requirement
Option 3
Option 2
APS Customer Sited Community Solar
Additional Energy from Lifetime Authorization
Installed and Committed (est. '11)
Wholesale

Exhibit 2

RES Budget Detail

Exhibit 2A details the proposed RES budget for the 2012 through 2016 program by line item for both renewable generation and for distributed energy.

Exhibit 2B details each of the Company's proposed budget options (Option 1, Option 2, and Option 3).

Exhibit 2A: APS 2012 - 2016 RES Budget Summary (in $M's)

Line No.		2012	2013	2014	2015	2016	Total	Line No.
1	**Renewable Generation**							1
2	***Renewable Generation Contracts and Operation and Maintenance***							2
3	Purchases and Generation [1]	$ 67.5	$ 46.1	$ 104.7	$ 84.3	$ 90.6	$ 393.2	3
4	Administration	1.9	2.0	2.0	2.1	2.1	10.1	4
5	Implementation	1.3	1.3	1.4	1.4	1.5	6.9	5
6	***Total RG Contracts and O/M***	***$ 70.7***	***$ 49.4***	***$ 108.1***	***$ 87.8***	***$ 94.2***	***$ 410.2***	6
7	***Offsets***							7
8	Estimated Green Choice Revenue Credit	$ (0.6)	$ (2.3)	$ (2.3)	$ (2.3)	$ (2.3)	$ (9.8)	8
9								9
10	***Total Renewable Generation*** *(line 6 + line 8)*	***$ 70.1***	***$ 47.1***	***$ 105.8***	***$ 85.5***	***$ 91.9***	***$ 400.4***	10
11								11
12	**Customer Sited Distributed Energy**							12
13	***Existing Contracts and Commitments***							13
14	DE RFP	$ 4.9	$ 7.4	$ 9.6	$ 9.7	$ 9.6	$ 41.2	14
15	Innovative Technologies [2]	0.2	1.3	1.3	1.3	1.3	5.4	15
16	Production-based Incentives (Existing)	7.9	13.3	14.1	14.1	14.1	63.5	16
17	Flagstaff CPP	0.4	0.2	-	-	-	0.6	17
18	Wholesale DE [3]	0.2	0.2	0.4	0.5	0.7	2.0	18
19	***Total Existing Contracts and Commitments***	***$ 13.6***	***$ 22.4***	***$ 25.4***	***$ 25.6***	***$ 25.7***	***$ 112.7***	19
20								20
21	***New Incentives and Commitments***							21
22	Schools and Government Program [4]	6.8	7.1	11.4	10.0	9.6	44.9	22
23	APS Customer Sited Community Solar [5]	2.9	11.2	18.3	8.3	11.9	52.6	23
24	EE/RE Integrated Pilot [6]	1.5	-	-	-	-	1.5	24
25	Energy Assistance for Renewable Neighborhoods	0.5	0.5	0.5	0.5	0.5	2.5	25
26	***Total New Incentives and Commitments***	***$ 11.7***	***$ 18.8***	***$ 30.2***	***$ 18.8***	***$ 22.0***	***$ 101.5***	26
27								27
28	***Total Incentives and Commitments*** *(line 19 + line 26)*	***$ 25.3***	***$ 41.2***	***$ 55.6***	***$ 44.4***	***$ 47.7***	***$ 214.2***	28
29								29
30	***Non-Incentive Distributed Energy Costs***							30
31	Administration	$ 2.2	$ 2.2	$ 2.3	$ 2.3	$ 2.4	$ 11.4	31
32	Implementation [7]	5.0	5.3	5.2	5.1	5.1	25.7	32
33	Information Technology	1.8	1.5	1.0	1.0	1.0	6.3	33
34	Renewable Energy Incentive Program Non-Incentive Costs	2.3	2.3	2.3	2.3	2.3	11.5	34
35	Advertising	0.7	0.7	0.7	0.7	0.7	3.5	35
36	***Total Non-Incentive DE Costs***	$ 12.0	$ 12.0	$ 11.5	$ 11.4	$ 11.5	$ 58.4	36
37								37
38	***Total Customer Sited DE*** *(line 28 + line 36)*	***$ 37.3***	***$ 53.1***	***$ 67.1***	***$ 55.8***	***$ 59.2***	***$ 272.6***	38
39								39
40	*Research, Commercialization, & Integration*	*$ 1.8*	*$ 1.5*	*$ 1.5*	*$ 1.5*	*$ 1.5*	*$ 7.8*	40
41								41
42	**Base RES Budget** *(line 10 + line 38 + line 40)*	**$ 109.2**	**$ 101.7**	**$ 174.4**	**$ 142.8**	**$ 152.6**	**$ 680.8**	42
43								43
44	***Total RES Budget*** [9]							44
45	Option 1 additions [8]	$ 20.0	$ 13.7	$ 14.8	$ 21.5	$ 32.3	$ 102.3	45
46	**Base RES plus Option 1 total**	**$ 129.2**	**$ 115.4**	**$ 189.2**	**$ 164.4**	**$ 184.9**	**$ 783.1**	46
47	Option 2 additions [8]	$ 32.0	$ 23.1	$ 19.3	$ 27.0	$ 28.1	$ 129.5	47
48	**Base RES plus Option 2 total**	**$ 141.2**	**$ 124.8**	**$ 193.7**	**$ 169.8**	**$ 180.7**	**$ 810.2**	48
49	Option 3 additions [8]	$ 42.3	$ 39.5	$ 36.8	$ 38.6	$ 35.8	$ 193.0	49
50	**Base RES plus Option 3 total**	**$ 151.5**	**$ 141.2**	**$ 211.2**	**$ 181.5**	**$ 188.4**	**$ 873.8**	50

Notes:

[1] Includes AZ Sun program. For additional detail refer to Exhibits 3A and 3E.

[2] Assumes resources deployed in Nov. 2012. Utilizes funds authorized under the DE RFP.

[3] Includes costs from Snowflake White Mountain Power which is split between Renewable Generation (RG) and Distributed Energy (DE). The split is based on the amount of the wholesale DE component allowed in a given year.

[4] The Schools and Government Program as approved in ACC Decision No. 72174.

[5] Represents the expansion of both the 2012 Schools and Government Program and future customer sited community solar.

[6] This program represents a shared effort between energy efficiency, smart grid and renewable energy for the installation of smart invertors and in-home solar production displays. Costs represents programmatic expenses and capital deployment revenue requirement.

[7] Includes metering initiative capital revenue requirement. DE Implementation costs assume meter sets associated with Option 2, this will vary approximately -/+ $300k for Option 1 or Option 3 respectively.

[8] For optionality detail please refer to Exhibit 2B.

[9] Assumes rate case adjudication in 2012 and 2014.

Exhibit 2B: APS 2012 RES IP - Optionality Detail

Option 1

Line No.	Energy (in MWh)	2012	2013	2014	2015	2016	Total	Line No.
1	Renewable Generation	-	-	-	258,420	258,420	516,840	1
2	Residential Distributed Energy UFI	28,326	50,759	76,125	101,922	152,100	409,232	2
3	**Total Energy**	**28,326**	**50,759**	**76,125**	**360,342**	**410,520**	**926,072**	3
4								4
5	**Expense (in $M)**							5
6	Renewable Generation	$ -	$ -	$ -	$ 7.7	$ 7.8	$ 15.5	6
7	Residential Distributed Energy UFI	20.0	13.7	14.8	13.8	24.5	86.8	7
8	**Total Expense**	**$ 20.0**	**$ 13.7**	**$ 14.8**	**$ 21.5**	**$ 32.3**	**$ 102.3**	8

Option 1 Notes:

- Option 1 consists of an additional 118 MW of a utility scale renewable generation PPA (expressed in PV equivalency) and residential DE full compliance.
- These amount would be $300k less to capture the payroll associated with the volumetric decrease in meter sets.

Option 2

	Energy (in MWh)	2012	2013	2014	2015	2016	Total
14	Renewable Generation	-	-	-	216,504	216,504	433,008
15	Residential Distributed Energy UFI	42,292	75,128	100,775	128,742	159,487	506,424
16	Non-Residential Distributed Energy UFI	2,011	4,247	6,483	9,114	11,745	33,600
17	Non-Residential Distributed Energy PBI	1,042	11,458	23,958	36,458	47,917	120,833
18	**Total Energy**	**45,345**	**90,833**	**131,216**	**390,818**	**435,653**	**1,093,865**
19	**Expense (in $M)**						
20	Renewable Generation	$ -	$ -	$ -	$ 6.5	$ 6.5	$ 13.0
21	Residential Distributed Energy UFI	29.9	20.0	15.0	15.0	15.0	94.9
22	Non-Residential Distributed Energy UFI	2.0	2.0	2.0	2.0	2.0	10.0
23	Non-Residential Distributed Energy PBI	0.1	1.1	2.3	3.5	4.6	11.6
24	**Total Expense**	**$ 32.0**	**$ 23.1**	**$ 19.3**	**$ 27.0**	**$ 28.1**	**$ 129.5**

Option 2 Notes:

- Consists of 93 MW of a utility scale renewable generation PPA (expressed in PV equivalency), 25 MW of PBI based Distributed Energy installations, $2M annual non-residential DE UFI program expansion, and residential DE incremental compliance.

Option 3

	Energy (in MWh)	2012	2013	2014	2015	2016	Total
31	Renewable Generation	-	-	-	148,920	148,920	297,840
32	Residential Distributed Energy UFI	56,652	114,115	165,410	212,021	253,014	801,212
33	Non-Residential Distributed Energy UFI	2,011	4,247	6,483	9,114	11,745	33,600
34	Non-Residential Distributed Energy PBI	11,029	33,088	55,147	77,206	88,235	264,705
35	**Total Energy**	**69,692**	**151,450**	**227,040**	**447,261**	**501,914**	**1,397,357**
36	**Expense (in $M)**						
37	Renewable Generation	$ -	$ -	$ -	$ 4.4	$ 4.5	$ 8.9
38	Residential Distributed Energy UFI	40.0	35.0	30.0	25.0	20.0	150.0
39	Non-Residential Distributed Energy UFI	2.0	2.0	2.0	2.0	2.0	10.0
40	Non-Residential Distributed Energy PBI	0.3	2.5	4.8	7.2	9.3	24.1
41	**Total Expense**	**$ 42.3**	**$ 39.5**	**$ 36.8**	**$ 38.6**	**$ 35.8**	**$ 193.0**

Option 3 Notes:

- Consists of 68 MW of a utility scale renewable generation PPA (expressed in PV equivalency), 50 MW of PBI based Distributed Energy installations, $2M annual non-residential DE UFI program expansion, and residential DE over compliance.

These amount would be $300k greater to capture the payroll associated with the volumetric increase in meter sets.

Notes:

1 This amount is additive to the expected 32 MW of PV capacity resulting from the 2012 Small Generator RFP.

Exhibit 3

Renewable Generation

Exhibit 3A details the expected energy contribution from existing and planned renewable generation projects.

Exhibit 3B details the expected capacity contribution from existing and planned renewable generation projects.

Exhibit 3C details the estimated RES cost for each existing and planned renewable generation project. REDACTED.

Exhibit 3D details the estimated cost per MWh for each existing and planned renewable generation project. REDACTED.

Exhibit 3E details the AZ Sun Program revenue requirements.

Exhibit 3A: APS Existing and Targeted Generation (MWh)

Line No.		2012	2013	2014	2015	2016	Total	Line No.
1	***Existing Contracts and APS Resources:***							1
2	***Solar:***							2
3	Photovoltaic Sites [1]	15,937	15,937	15,937	15,937	15,937	79,685	3
4	Saguaro CSP	2,015	2,015	2,015	2,015	2,015	10,075	4
5	2009 Small Generation: Ajo	10,467	10,415	10,363	10,311	10,259	51,815	5
6	2009 Small Generation: Prescott	25,120	24,869	24,620	24,374	24,130	123,113	6
7	2010 Small Generation: Tonopah	-	35,070	34,789	34,511	34,235	138,605	7
8	Paloma	41,825	41,531	41,241	40,952	40,665	206,214	8
9	Hyder	38,043	40,466	40,263	40,062	39,862	198,696	9
10	Cotton Center	46,028	45,798	45,569	45,341	45,114	227,850	10
11	Chino Valley [2]	14,837	46,417	46,185	45,954	45,724	199,117	11
12	Luke AFB	-	8,691	34,676	34,503	34,330	112,200	12
13	Solana CSP	-	282,641	903,349	903,349	903,349	2,992,688	13
14	***Total Solar***	*194,272*	*553,850*	*1,199,007*	*1,197,309*	*1,195,620*	*4,340,058*	14
15	***Wind:***							15
16	Aragonne Mesa	269,939	269,239	269,239	269,239	269,939	1,347,595	16
17	High Lonesome	299,592	299,592	299,592	299,592	299,592	1,497,960	17
18	Perrin Ranch	268,784	282,163	282,163	282,163	282,931	1,398,204	18
19	***Total Wind***	*838,315*	*850,994*	*850,994*	*850,994*	*852,462*	*4,243,759*	19
20	***Geothermal:***							20
21	CE Turbo	73,465	73,264	73,264	73,264	73,465	366,722	21
22	***Total Geothermal***	*73,465*	*73,264*	*73,264*	*73,264*	*73,465*	*366,722*	22
23	***Biomass/Biogas:***							23
24	Snowflake White Mountain Power [3]	69,469	60,806	50,978	47,424	41,717	270,394	24
25	Sexton Glendale Landfill	20,857	20,800	20,800	20,800	20,857	104,114	25
26	2010 Small Generation: Surprise Landfill	10,807	22,560	22,560	22,560	22,622	101,109	26
27	***Total Biomass/Biogas***	*101,133*	*104,166*	*94,338*	*90,784*	*85,196*	*475,617*	27
28	***Subtotal - Contracted Projects***	***1,207,185***	***1,582,274***	***2,217,603***	***2,212,351***	***2,206,743***	***9,426,156***	28
29								29
30	***Targeted Additions:***							30
31	2011 Small Generation RFP [4]	-	35,000	70,000	70,000	70,000	245,000	31
32	2012 Small Generation RFP [4]	-	-	35,000	70,000	70,000	175,000	32
33	AZ Sun Tranche 2 Future Project	-	27,923	37,230	37,230	37,230	139,613	33
34	AZ Sun Tranche 3 Future Project [5]	-	9,855	39,420	39,420	39,420	128,115	34
35	AZ Sun Tranche 3 Future Project [5]	-	-	52,560	70,080	70,080	192,720	35
36	AZ Sun Tranche 3 Future Project [5]	-	-	-	82,125	109,500	191,625	36
37	***Subtotal - Targeted Additions***	***-***	***72,778***	***234,210***	***368,855***	***396,230***	***1,072,073***	37
38								38
39	**Base Renewable Generation Energy**	**1,207,185**	**1,655,052**	**2,451,813**	**2,581,206**	**2,602,973**	**10,498,229**	39
40								40
41	**Total Renewable Generation Energy [6]**							41
42	*Option 1*	-	-	-	*258,420*	*258,420*	*516,840*	42
43	***Base with Option 1***	***1,207,185***	***1,655,052***	***2,451,813***	***2,839,626***	***2,861,393***	***11,015,069***	43
44	*Option 2*	-	-	-	*216,504*	*216,504*	*433,008*	44
45	***Base with Option 2***	***1,207,185***	***1,655,052***	***2,451,813***	***2,797,710***	***2,819,477***	***10,931,237***	45
46	*Option 3*	-	-	-	*148,920*	*148,920*	*297,840*	46
47	***Base with Option 3***	***1,207,185***	***1,655,052***	***2,451,813***	***2,730,126***	***2,751,893***	***10,796,069***	47
48								48

Notes:

[1] Includes the REC multiplier for in-state solar installation prior to 12/31/2005 per Decision No. 69127. For purposes of consistency in this exhibit, RECs are counted as energy.

[2] Based on Chino Valley approved as requested in this 2012 RES IP which will enable APS to commence construction January 2012.

[3] Includes costs from Snowflake White Mountain Power which is split between Renewable Generation (RG) and Distributed Energy (DE). The split is based on the amount of the wholesale DE component allowed in a given year.

[4] These projects are part of APS's authorized Small Generator Standard Offer program.

[5] Assumes a staggered deployment of an additional phase of AZ Sun development. All project in-service dates are based on development planning assumption. For additional detail on the AZ Sun program see Exhibit 3E.

[6] For detail on the three options please refer to Exhibit 2B.

Exhibit 3B: APS Existing and Targeted Generation Capacity (MW)

Line No.		2012	2013	2014	2015	2016	Line No.
1	***Existing Contracts and APS Resources:***						1
	Solar:						
2	APS-Owned: Photovoltaic Sites [1]	5	5	5	5	5	2
3	APS Owned: Saguaro CSP [1]	1	1	1	1	1	3
4	2009 Small Generation: Ajo	4	4	4	4	4	4
5	2009 Small Generation: Prescott	10	10	10	10	10	5
6	2010 Small Generation: Tonopah	-	15	15	15	15	6
7	Paloma	17	17	17	17	17	7
8	Hyder	16	16	16	16	16	8
9	Cotton Center	17	17	17	17	17	9
10	Chino Valley	19	19	19	19	19	10
11	Luke AFB	-	14	14	14	14	11
12	Solana CSP	-	250	250	250	250	12
13	***Total Solar***	*89*	*368*	*368*	*368*	*368*	13
14							14
15	***Wind:***						15
16	Aragonne Mesa	90	90	90	90	90	16
17	High Lonesome	100	100	100	100	100	17
18	Perrin Ranch	99	99	99	99	99	18
19	***Total Wind***	*289*	*289*	*289*	*289*	*289*	19
20	***Geothermal:***						20
21	CE Turbo	10	10	10	10	10	21
22	***Total Geothermal***	*10*	*10*	*10*	*10*	*10*	22
23	***Biomass/Biogas:***						23
24	Snowflake White Mountain Power [2]	15	15	15	15	15	24
25	Sexton Glendale Landfill	3	3	3	3	3	25
26	2010 Small Generation: Surprise Landfill	3	3	3	3	3	26
27	***Total Biomass/Biogas***	*21*	*21*	*21*	*21*	*21*	27
28							28
29	***Subtotal - Contracted Projects***	***409***	***688***	***688***	***688***	***688***	29
30							30
31	***Targeted Additions:***						31
32	2011 Small Generation RFP [3]	-	32	32	32	32	32
33	2012 Small Generation RFP [3]	-	-	32	32	32	33
34	AZ Sun Tranche 2 Future Project	-	17	17	17	17	34
35	AZ Sun Tranche 3 Future Project [4]	-	18	18	18	18	35
36	AZ Sun Tranche 3 Future Project [4]	-	-	32	32	32	36
37	AZ Sun Tranche 3 Future Project [4]	-	-	-	50	50	37
38	***Subtotal - Targeted Additions***	***-***	***67***	***131***	***181***	***181***	38
39							39
40	**Base Total Renewable Generation Capacity**	**409**	**755**	**819**	**869**	**869**	40
41							41
42	***Total Renewable Generation Capacity***						42
43	*Option 1*	-	-	-	*118*	*118*	43
44	***Base with Option 1***	***409***	***755***	***819***	***987***	***987***	44
45	*Option 2*	-	-	-	*93*	*93*	45
46	***Base with Option 2***	***409***	***755***	***819***	***962***	***962***	46
47	*Option 3*	-	-	-	*68*	*68*	47
48	***Base with Option 3***	***409***	***755***	***819***	***937***	***937***	48
49							49

Notes:

[1] Includes the REC multiplier for in-state solar installation prior to 12/31/2005 per Decision No. 69127.

[2] As noted in Exhibit 2A, this project is split between Renewable Generation (RG) and Distributed Energy (DE). As the DE MWh requirement increases, the amount shown here as allocated to RG decreases.

[3] These projects are part of APS's authorized Small Generator Standard Offer program and are estimated as solar PV capacity.

[4] Assumes a staggered deployment of an additional phase of AZ Sun development. All project in-service dates are based on development planning assumption. For additional detail on the AZ Sun program see Exhibit 3E.

[5] Capacity is expressed in MWac.

[6] For detail on the three options please refer to Exhibit 2B.

Exhibit 3C: APS Renewable Existing and Targeted Generation RES Costs (in $M's) - Redacted

Line No.		2012	2013	2014	2015	2016	Total	Line No.
1	***Existing Contracts and APS Resources:***							1
2	***Solar:***							2
3	Photovoltaic Sites [1]							3
4	Saguaro CSP [2]							4
5	2009 Small Generation: Ajo							5
6	2009 Small Generation: Prescott							6
7	2010 Small Generation: Tonopah							7
8	Paloma [3]							8
9	Hyder [3]							9
10	Cotton Center [3]							10
11	Chino Valley [3]							11
12	Luke AFB [3]							12
13	Solana CSP							13
14	***Total Solar***							14
15	***Wind:***							15
16	Aragonne Mesa							16
17	High Lonesome							17
18	Perrin Ranch							18
19	***Total Wind***							19
20	***Geothermal:***							20
21	CE Turbo							21
22	***Total Geothermal***							22
23	***Biomass/Biogas:***							23
24	Snowflake White Mountain Power [4]							24
25	Sexton Glendale Landfill							25
26	2010 Small Generation: Surprise Landfill							26
27	***Total Biomass/Biogas***							27
28								28
29	***Subtotal - Contracted Projects***							29
30								30
31	***Targeted Additions:***							31
32	2011 Small Generation RFP [5]							32
33	2012 Small Generation RFP [5]							33
33	AZ Sun Tranche 2 Future Project [4]							33
34	AZ Sun Tranche 3 Future Project [3,6]							34
35	AZ Sun Tranche 3 Future Project [3,6]							35
36	AZ Sun Tranche 3 Future Project [3,6]							36
37	***Subtotal - Targeted Additions***							37
38	**Base Total Renewable Generation**	**$ 67.5**	**$ 46.0**	**$ 104.8**	**$ 84.3**	**$ 90.6**	**$ 393.2**	38
39								39
40	***Total Renewable Generation Cost*** [7]							40
41	*Option 1*	*$ -*	*$ -*	*$ -*	*$ 7.7*	*$ 7.8*	*$ 15.5*	41
42	***Base with Option 1***	***$ 67.5***	***$ 46.0***	***$ 104.8***	***$ 92.0***	***$ 98.4***	***$ 408.7***	42
43	*Option 2*	*$ -*	*$ -*	*$ -*	*$ 6.5*	*$ 6.5*	*$ 13.0*	43
44	***Base with Option 2***	***$ 67.5***	***$ 46.0***	***$ 104.8***	***$ 90.8***	***$ 97.1***	***$ 406.2***	44
45	*Option 3*	*$ -*	*$ -*	*$ -*	*$ 4.4*	*$ 4.5*	*$ 8.9*	45
46	***Base with Option 3***	***$ 67.5***	***$ 46.0***	***$ 104.8***	***$ 88.7***	***$ 95.1***	***$ 402.1***	46

Notes:

[1] Project is APS owned and was funded by customers under the Environmental Portfolio Standard. There is no recurring contract cost to be funded by the RES.

[2] The amount represented in 2012 and 2013 reflects the performance O&M contract for the Saguaro CSP generation facility.

[3] For detail of the AZ Sun program see Exhibit 3E. Assumes rate case adjudications for base rates in 2012 and 2014.

[4] As noted in Exhibit 2, this project is split between Renewable Generation (RG) and Distributed Energy (DE). As the DE MWh requirement increases, the amount shown here as allocated to RG decreases.

[5] These projects are part of APS's authorized Small Generator Standard Offer program.

[6] Assumes a staggered deployment of an additional phase of AZ Sun development. All project in-service dates are based on development planning assumption. For additional detail on the AZ Sun program see Exhibit 3E.

[7] For detail on the three options please refer to Exhibit 2B.

Exhibit 3D: Third Party APS Renewable Generation RES Costs - Redacted ($/MWh) [1]

Line No.		2012	2013	2014	2015	2016	Line No.
1	***Existing Contracts:***						1
2	***Solar:***						2
3	2009 Small Generation: Ajo	[redacted]					3
4	2009 Small Generation: Prescott						4
5	2010 Small Generation: Tonopah						5
	Solana CSP						
6	**Wind:**						6
7	Aragonne Mesa	[redacted]					7
8	High Lonesome						8
9	Perrin Ranch						9
10	***Geothermal:***						10
11	CE Turbo	[redacted]					11
12	***Biomass/Biogas:***						12
13	Snowflake White Mountain Power [2]	[redacted]					13
14	Sexton Glendale Landfill						14
15	2010 Small Generation: Surprise Landfill						15
16	***Estimated:***						16
17	2011 Small Generation RFP [3]	[redacted]					17

Notes:

[1] This Exhibit is an assessment of the cost per MWh each renewable generation resource contributes and does not include the RG expansion described in Exhibit 2B.

[2] As noted in Exhibit 2, this project is split between Renewable Generation (RG) and Distributed Energy (DE). As the DE MWh requirement increases, the amount shown here as allocated to RG decreases.

[3] These projects are part of APS's proposed Small Generator Standard Offer program.

Exhibit 3E: AZ Sun Program Revenue Requirements

AZ Sun Revenue Requirements (in $M's)[1,2,3]

	MW	2012	2013	2014	2015	2016
Existing Contracts[4]						
Paloma	17	$ 12.0	$ 9.8	$ 7.0	$ 6.6	$ 6.5
Hyder I	11	10.1	8.7	6.3	6.0	5.9
Cotton Center	17	14.3	11.5	8.2	7.8	7.6
Hyder II	5	2.5	2.4	1.7	1.6	1.6
Chino Valley	19	5.3	12.2	8.9	8.5	8.3
Luke AFB	14	-	2.2	9.1	8.1	7.5
Estimated Projects[5]						
AZ Sun Balance	17	-	9.6	10.4	9.3	8.6
AZ Sun Tranche 3 - #1	18	-	2.5	10.4	9.3	8.6
AZ Sun Tranche 3 - #2	32	-	-	13.4	17.9	16.5
AZ Sun Tranche 3 - #3	50	-	-	-	20.9	27.4
Revenue Requirement Total	**200**	**$ 44.2**	**$ 58.9**	**$ 75.4**	**$ 96.0**	**$ 98.5**

Total AZ Sun Costs to the RES Adjustor (in $M's)

	MW	2012	2013	2014	2015	2016
Existing Contracts[4]						
Paloma	17	$ 12.0	-	-	-	-
Hyder I	11	10.1	-	-	-	-
Cotton Center	17	14.3	-	-	-	-
Hyder II	5	2.5	-	-	-	-
Chino Valley	19	5.3	-	-	-	-
Luke AFB	14	-	2.2	9.1	-	-
Estimated Projects[5]						
AZ Sun Balance	17	-	9.6	10.4	-	-
AZ Sun Tranche 3 - #1	18	-	2.5	10.4	-	-
AZ Sun Tranche 3 - #2	32	-	-	13.4	-	-
AZ Sun Tranche 3 - #3	50	-	-	-	20.9	27.4
RES Cost Total	**200**	**$ 44.2**	**$ 14.3**	**$ 43.3**	**$ 20.9**	**$ 27.4**

Notes:

[1] Assumes a $25,000 MW-yr O&M for solar photovoltaic installations.

[2] Assumes a total depreciable life of 30 years.

[3] Presentation shows full year of recovery for 2012 and 2014. Actual recovery via the RES adjustor may differ as there will be a simultaneous and offsetting adjustment of the RES and base rates upon the effective date of new base rates.

[4] Includes projects currently under contract through the Company's approved AZ Sun program.

[5] Includes the 17 MW project that is the remaining balance of the approved AZ Sun program as well as future projects as part of the requested 100 MW expansion of the program.

Exhibit 4

Customer-Sited Distributed Energy

Exhibit 4A details the estimated energy contribution from existing and planned distributed generation projects.

Exhibit 4B details the annual incentive budget by residential and non-residential classifications.

Exhibit 4C details the estimated total cost of the APS Production-Based Incentive program including cumulative lifetime authorizations.

Exhibit 4D details the budgeted annualized expansion of new Production-Based Incentive contracts for the plan years of 2012-2016.

Exhibit 4E details the portion of the Community Power Project – Flagstaff Pilot that is recovered through Adjustment Schedule RES.

Exhibit 4A: APS Customer Sited Distributed Energy Programs (MWh)

Line No.		2012	2013	2014	2015	2016	Total	Line No.
	Residential							
1	Current Energy Production[1]	119,633	119,633	119,633	119,633	119,633	598,165	1
2	Community Power Project	902	902	902	902	902	4,510	2
3	***Total Residential***	***120,535***	***120,535***	***120,535***	***120,535***	***120,535***	***602,675***	3
4	*Total Residential DE Target*	*147,960*	*170,392*	*195,757*	*221,554*	*271,733*		4
5	**Non-Residential**							5
6								6
7	*Existing Contractual Commitments:*							7
8	Current Up-Front Incentives	21,476	21,476	21,476	21,476	21,476	107,380	8
9	Production-based Incentives [2]	116,830	116,830	116,830	116,830	116,830	584,150	9
10	2008 Distributed Energy RFP	7,751	46,937	72,895	102,689	102,125	332,397	10
11	Schools and Government	3,125	16,666	33,729	33,729	33,729	120,978	11
12	Innovative Technologies	2,000	12,000	12,000	12,000	12,000	50,000	12
13	Wholesale DE [3]	42,360	50,721	60,549	64,103	70,112	287,845	13
14	***Total Non-Residential***	***193,542***	***264,630***	***317,479***	***350,827***	***356,272***	***1,482,750***	14
15	*Total Non-Residential DE Target*	*147,960*	*170,392*	*195,757*	*221,554*	*271,733*		15
16								16
17	***Base Total Customer Sited Distributed Energy (MWh)***	***314,077***	***385,165***	***438,014***	***471,362***	***476,807***	***2,085,425***	17
18								18
19	APS Schools and Government	2,897	15,451	31,271	31,271	31,271	112,161	19
20	APS Customer Sited Community Solar	11,029	33,088	55,147	77,206	88,235	264,705	20
21	***Total APS Customer Sited Community Solar***	***13,926***	***48,539***	***86,418***	***108,477***	***119,506***	***376,866***	21
22								22
23	***Total Distributed Energy Production***							23
24	*Option 1*	*28,326*	*50,759*	*76,125*	*101,922*	*152,100*	*409,232*	24
25	***Base with Option 1***	***342,403***	***435,924***	***514,139***	***573,284***	***628,907***	***2,494,657***	25
26	*Percent of DE Target*	*116%*	*128%*	*131%*	*129%*	*116%*		26
27	*Option 2*	*45,345*	*90,833*	*131,217*	*174,314*	*219,149*	*660,857*	27
28	***Base with Option 2***	***359,422***	***475,998***	***569,231***	***645,676***	***695,956***	***2,746,282***	28
29	*Percent of DE Target*	*121%*	*140%*	*145%*	*146%*	*128%*		29
30	*Option 3*	*69,693*	*151,450*	*227,040*	*298,340*	*352,995*	*1,099,519*	30
31	***Base with Option 3***	***383,770***	***536,615***	***665,055***	***769,702***	***829,802***	***3,184,944***	31
32	*Percent of DE Target*	130%	157%	170%	174%	153%		32

Notes:

[1] Estimated total energy resulting from incentives paid with funds through 2011.

[2] Existing PBI Commitments up to the $420 million lifetime authorization approved in Commission Decision Nos. 71254 and 71459.

[3] This line item is made up of a project (Snowflake White Mountain Power) that is split between Renewable Generation and DE. The split is based on the amount of the wholesale component in a given year.

[4] For detail on the three options please refer to Exhibit 2B.

Exhibit 4B: APS Customer Sited Distributed Energy Incentive Program Costs (in $M's)

Line No.		2012	2013	2014	2015	2016	Total	Line No.
1	**Residential**			***See Exhibit 2B***				1
2	**Non-Residential**							2
3								3
4	*Existing Contractual Commitments:*							4
5	Production-based Incentives (Existing) [2]	$ 7.9	$ 13.3	$ 14.1	$ 14.1	$ 14.1	$ 63.5	5
6	2008 Distributed Energy RFP	4.9	7.4	9.6	9.7	9.6	41.2	6
7	Innovative Technologies [3]	0.2	1.3	1.3	1.3	1.3	5.4	7
8	Wholesale DE [4]	0.2	0.2	0.4	0.5	0.7	2.0	8
9	*Total Current Commitments*	*$ 13.2*	*$ 22.2*	*$ 25.4*	*$ 25.6*	*$ 25.7*	*$ 112.1*	9
10								10
11	*New Program Commitments:*							11
12	RE/EE Program Initiative	$ 1.5	$ -	$ -	$ -	$ -	$ 1.5	12
13	Energy Assistance for Renewable Neighborhoods	0.5	0.5	0.5	0.5	0.5	2.5	13
14	Customer Self-Directed [5]	-	-	-	-	-	-	14
15	*Total New Commitments*	*$ 2.0*	*$ 0.5*	*$ 0.5*	*$ 0.5*	*$ 0.5*	*$ 4.0*	15
16								16
17	*Community Based Distributed Energy:*							17
18	APS Customer Sited Community Solar	$ 2.9	$ 11.2	$ 18.3	$ 8.3	$ 11.9	$ 52.6	18
19	Schools and Gov't Rev Requirement	4.4	1.5	6.0	5.4	5.0	22.3	19
20	Schools and Gov't Incentives	2.2	5.4	5.4	4.6	4.6	22.2	20
21	Schools and Gov't O&M	0.2	0.2	-	-	-	0.4	21
22	Flagstaff CPP	0.4	0.2	-	-	-	0.6	22
23	*Total Community Based Distributed Energy Program*	*$ 10.1*	*$ 18.5*	*$ 29.7*	*$ 18.3*	*$ 21.5*	*98.1*	23
24	***Total Non-Residential***	***$ 25.3***	***$ 41.2***	***$ 55.6***	***$ 44.4***	***$ 47.7***	***$ 214.2***	24
25	**Base Total Customer Sited Distributed Energy Incentive**	**$ 25.3**	**$ 41.2**	**$ 55.6**	**$ 44.4**	**$ 47.7**	**$ 214.2**	25
26								26
27	***Total Distributed Energy Cost***							27
28	*Option 1*	*$ 20.0*	*$ 13.7*	*$ 14.8*	*$ 13.8*	*$ 24.5*	*$ 86.8*	28
29	***Base with Option 1***	***$ 45.3***	***$ 54.9***	***$ 70.4***	***$ 58.2***	***$ 72.2***	***$ 301.0***	29
30	*Option 2*	*$ 32.0*	*$ 23.1*	*$ 19.3*	*$ 20.5*	*$ 21.6*	*$ 116.5*	30
31	***Base with Option 2***	***$ 57.3***	***$ 64.3***	***$ 74.9***	***$ 64.9***	***$ 69.3***	***$ 330.7***	31
32	*Option 3*	*$ 42.3*	*$ 39.5*	*$ 36.8*	*$ 34.2*	*$ 31.3*	*$ 184.1*	32
33	***Base with Option 3***	***$ 67.6***	***$ 80.7***	***$ 92.4***	***$ 78.6***	***$ 79.0***	***$ 398.3***	33

Notes:

[1] For the Residential DE UFI expansion refer to the DE expansion options outlined in exhibit 5A.

[2] Forecast based on existing PBI Commitments up to the $420 million lifetime authorization approved in Commission Decision Nos. 71254 and 71459.

[3] Assumption of deployment of resource in Nov. 2012. Utilizes funds originally authorized under the DE RFP of $250M lifetime authorization as per Decision No. 71459.

[4] Includes Snowflake White Mountain Power that is split between Renewable Generation and DE. The split is based on the amount of the wholesale component in a given year.

[5] No customers have applied for self-direction and therefore no allocation has been made.

[6] For detail on the three options please refer to Exhibit 2B.

Exhibit 4C: PBI Commitments (In $000's)

Line No		2012	2013	2014	2015	2016	Line No
1	*Current Contractual Commitments:*						1
2	Total Cash Commitment for Existing PBIs	$ 7,944	$ 13,272	$ 14,063	$ 14,063	$ 14,063	2
3	DE RFP ($250 million DE RFP lifetime authorization)	$ 4,910	$ 7,369	$ 9,556	$ 9,705	$ 9,648	3
4	Innovative Technologies ($25 million lifetime authorization)	$ 156	$ 1,250	$ 1,250	$ 1,250	$ 1,250	4
5	*Total Cash Commitment for Existing PBI Contracts*	*$ 13,010*	*$ 21,891*	*$ 24,869*	*$ 25,018*	*$ 24,961*	5
6							6
7	*Program Expansion (New Commitments):*						7
8	PBI Annual Commitment (Additional lifetime authorization)[1]	$ -	$ -	$ -	$ -	$ -	8
9	Schools and Govt. Building Commitment (up to $66 million lifetime authorization)	$ 1,754	$ 1,747	$ 1,740	$ 1,724	$ 1,727	9
10	*Total Cash Commitment for New PBI Contracts*	*$ 1,754*	*$ 1,747*	*$ 1,740*	*$ 1,724*	*$ 1,727*	10
11							11
12	*Total PBI Contractual Commitments:*						12
13	2006 Contracts	$ -	$ -	$ -	$ -	$ -	13
14	2007 Contracts	$ 93	$ 93	$ 93	$ 93	$ 93	14
15	2008 Contracts	$ 789	$ 789	$ 789	$ 789	$ 789	15
16	2009 Contracts	$ 1,086	$ 1,086	$ 1,086	$ 1,086	$ 1,086	16
17	2010 Contracts	$ 5,649	$ 7,619	$ 7,619	$ 7,619	$ 7,619	17
18	2011 Contracts	$ 327	$ 3,685	$ 4,476	$ 4,476	$ 4,476	18
19	2012 Contracts	$ -	$ -	$ -	$ -	$ -	19
20	2013 Contracts	$ -	$ -	$ -	$ -	$ -	20
21	2014 Contracts	$ -	$ -	$ -	$ -	$ -	21
22	2015 Contracts	$ -	$ -	$ -	$ -	$ -	22
23	DE RFP ($250 million DE RFP lifetime authorization)	$ 4,910	$ 7,369	$ 9,556	$ 9,705	$ 9,648	23
24	Innovative Technologies ($25 million lifetime authorization) [2]	$ 156	$ 1,250	$ 1,250	$ 1,250	$ 1,250	24
25	Total Schools and Govt. Building Commitment (up to $93 million lifetime authorization)	$ 3,498	$ 3,488	$ 3,479	$ 3,471	$ 3,462	25
26							26
27	***Annual Cash Commitment for All PBIs***	***$ 16,508***	***$ 25,379***	***$ 28,348***	***$ 28,489***	***$ 28,423***	27
28							28
29	*Cumulative authorized commitment* [3]	*$ 420,000*	*$ 420,000*	*$ 420,000*	*$ 420,000*	*$ 420,000*	29
30	*Cumulative authorization Commitment Expansion* [4]	*$ -*	*$ -*	*$ -*	*$ -*	*$ -*	30
31	*Cumulative Authorized DE RFP and Innovative Technologies: Commitment*	*$ 250,000*	*$ 250,000*	*$ 250,000*	*$ 250,000*	*$ 250,000*	31
32	***Cumulative Lifetime Commitment for All PBIs***	***$ 670,000***	***$ 670,000***	***$ 670,000***	***$ 670,000***	***$ 670,000***	32

Notes:

[1] Additional PBI commitments are outlined on exhibits 4D (options 1 - 3), as each option outlined in this plan has different payment schedules.

[2] The Innovative Technologies RFP utilized $25M of the originally authorized $250M of the DE RFP.

[3] PBI lifetime authorization approved in Commission Decision Nos. 71254 and 71459 of $420 million.

[4] Option 1 of the PBI expansion has no additional lifetime commitments, Option 2 adds $30M of lifetime commitments, and Option 3 adds $60M of lifetime commitments.

Exhibit 4D: PBI New Contracts Expansion (in $000's)

Option 1

No PBI expansion included in Option 1.

Option 2 (2012-2014)

Medium Projects

	Year 1				Year 2				Year 3+			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NP1	$ -	$ -	$ 16,493	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479
NP2	$ -	$ -	$ -	$ 32,986	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479
NP3	$ -	$ -	$ -	$ -	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479
NP4	$ -	$ -	$ -	$ -	$ 16,493	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479
NP5	$ -	$ -	$ -	$ -	$ -	$ 32,986	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479
NP6	$ -	$ -	$ -	$ -	$ -	$ -	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479
Total	$ -	$ -	$ 16,493	$ 82,465	$ 164,930	$ 230,902	$ 296,874	$ 296,874	$ 296,874	$ 296,874	$ 296,874	$ 296,874

Annual budget impact PBI program expansion

	Year 1	Year 2	Year 3	Year 4	Year 5
Expansion	$ 98,958	$ 989,580	$ 1,187,496	$ 1,187,496	$ 1,187,496

Option 3 (2012-2014)

Large Projects

	Year 1				Year 2				Year 3+			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NP1	$ -	$ -	$ 98,958	$ 148,438	$ 148,438	$ 148,438	$ 148,438	$ 148,438	$ 148,438	$ 148,438	$ 148,438	$ 148,438
NP2	$ -	$ -	$ -	$ -	$ 98,958	$ 148,438	$ 148,438	$ 148,438	$ 148,438	$ 148,438	$ 148,438	$ 148,438
Total	$ -	$ -	$ 98,958	$ 148,438	$ 247,396	$ 296,876	$ 296,876	$ 296,876	$ 296,876	$ 296,876	$ 296,876	$ 296,876

Medium Projects

	Year 1				Year 2				Year 3+			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
NP1	$ -	$ -	$ 16,493	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479
NP2	$ -	$ -	$ -	$ 32,986	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479
NP3	$ -	$ -	$ -	$ -	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479
NP4	$ -	$ -	$ -	$ -	$ 16,493	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479
NP5	$ -	$ -	$ -	$ -	$ -	$ 32,986	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479
NP6	$ -	$ -	$ -	$ -	$ -	$ -	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479	$ 49,479
Total	$ -	$ -	$ 16,493	$ 82,465	$ 164,930	$ 230,902	$ 296,874	$ 296,874	$ 296,874	$ 296,874	$ 296,874	$ 296,874

Annual budget impact PBI program expansion

	Year 1	Year 2	Year 3	Year 4	Year 5
Expansion	$ 346,354	$ 2,127,604	$ 2,375,000	$ 2,375,000	$ 2,375,000

[1] Assumes average PBI rate as of time of the 2012 RES IP.

[2] Assumes six month construction cycle from the above mentioned nomination periods (NP).

Exhibit 4E: Flagstaff Community Power Project Budget (in $M)

	2012	2013	2014	2015	2016
2008 RES Net Funds Available [1]	$ 4.0	$ 1.5	$ 1.5	$ 1.5	$ 1.5
Community Power Project Revenue Requirement [2 3]	$ 1.8	$ -	$ -	$ -	$ -
2008 RES Net Funds Remaining	$ 1.5	$ 1.5	$ 1.5	$ 1.5	$ 1.5
Community Power Project O/M [3]	**$ 0.4**	**$ 0.2**	**$ -**	**$ -**	**$ -**

Notes:

[1] Represents RES funds collected in 2008 that were unallocated by 12/31/2008 and which were not applied towards APS's 2010 RES adjustor as part of the ACC's review and approval of the APS 2010 Implementation Plan.

[2] Deployment and capital costs.

[3] Assumes APS general rate case adjudication and allocation to rate base in 2012.

Attachment 1

Schools and Government Program
Project Ranking Matrix

Attachment 1 Page 1 of 2 is a clean version of the revised Schools and Government Program Project Ranking Matrix.

Attachment 1 Page 2 of 2 is a redlined version showing revision changes to the Schools and Government Program Project Ranking Matrix.

Project Ranking Matrix

Category	Total Available Points	Criteria *Select the one that applies to your district*	Points	YOUR POINTS
Resource Index: *District-wide available bonding capacity per student*[1] **Not applicable to eligible charter schools*	*30*	Less than $1,000 per student	30	
		$1,001 to $2,000 per student	25	
		$2,001 to $4,000 per student	20	
		$4,001 to $6,000 per student	15	
		$6,001 to $8,000 per student	10	
		Greater than $8,000 per student	5	
Free and reduced Lunch Program Participation per School Facility: *Percent of students participating in the Free and Reduced Lunch Program*	*30*	95% to 100%	30	
		85% to 94%	25	
		75% to 84%	20	
		60% to 74%	15	
		40% to 59%	10	
		1% to 39%	5	
Blended Solar Technologies at Installation Location	*10*	PV, SDL, ST located on site	10	
		PV and SDL or ST	8	
		PV or SDL or ST	5	
		Below: Select all that apply		
Demand Side Management Measures: *Level of existing implementation of energy savings measures at the qualifying facility*	*30*	Benchmarked facility or have an Energy Star Portfolio Manager	5	
		Energy Assessment (Energy Audit) has been performed	10	
		Implementation of energy conservation measures as measured by APS Solutions for Business	15	

[1] Available Class B General Obligation Debt

Project Ranking Matrix

Category	Total Available Points	Criteria *Select the one that applies to your district*	Points	YOUR POINTS
Resource Index: *District-wide available bonding capacity per student*[1] **Not applicable to eligible charter schools*	*30*	Less than $~~4~~1,000 per student	30	
		$~~4~~1,001 to $~~8~~2,000 per student	25	
		$~~8~~2,001 to $~~10~~4,000 per student	20	
		$~~10~~4,001 to $~~12~~6,000 per student	15	
		$~~12~~6,001 to $~~14~~8,000 per student	10	
		~~$14,001 to $16,000 per student~~Greater than $8,000 per student	5	
Free and reduced Lunch Program Participation per School Facility: *Percent of students participating in the Free and Reduced Lunch Program*	*30*	~~80~~95% to 100%	30	
		~~60~~85% to ~~79~~94%	25	
		~~40~~75% to ~~59~~84%	20	
		~~20~~60% to ~~39~~74%	15	
		~~10~~40% to ~~19~~59%	10	
		1% to 39%	5	
Blended Solar Technologies at Installation Location	*10*	PV, SDL, ST located on site	10	
		PV and SDL or ST	8	
		PV or SDL or ST	5	
Below: Select all that apply				
Demand Side Management Measures: *Level of existing implementation of energy savings measures at the qualifying facility*	*30*	Benchmarked facility or have an Energy Star Portfolio Manager	5	
		Energy Assessment (Energy Audit) has been performed	10	
		Implementation of energy conservation measures as measured by APS Solutions for Business	15	

[1] Available Class B General Obligation Debt ~~as of June 30, 2010~~

Exhibit B

APS Renewable Energy Standard Implementation Plan Summary

Renewable Energy Implementation Plan Summary 2012-2016

Arizona Public Service Company ("APS" or "Company") has prepared its 2012 Renewable Energy Standard Implementation Plan ("Plan") for the five-year period of 2012 through 2016 in compliance with the Arizona Renewable Energy Standard ("RES") and the Company's 2009 Settlement Agreement ("Settlement") which adopted provisions that exceed the requirements of the RES. This Plan describes the renewable energy resources that will be added over the next five years to achieve APS's annual RES targets and Settlement commitments, and provides the Arizona Corporation Commission ("Commission") options regarding the type and scale of programs APS will implement during this planning period.

By complying with the Settlement requirements, APS expects to achieve production that will more than double the 2015 RES requirement of 5 percent of its retail sales. In order to achieve sufficient capacity to meet the requirement in 2015, the Company must establish through this Plan its procurement and development activities in 2012 to meet this goal.

In order to achieve the 300 megawatts ("MW")[1] of additional capacity identified by APS as needed in 2015 to comply with the requirements set forth in the Settlement, this Plan proposes utilizing two procurement methods including 1) 150 MW that includes a blend of purchasing additional energy through Power Purchase Agreements and additional Distributed Energy ("DE") system developments, and 2) 150 MW of new projects as part of an expansion of the AZ Sun Program and the Schools and Government Program, as well as additional DE projects to be proposed as part of APS's 2013 Plan.

APS is proposing three distinct energy and/or budget options that are intended to allow APS to meet or exceed the RES requirement, as well as the requirement set forth in APS's Settlement. APS's RES adjustor for 2012 will be determined by the budget option that is selected by the Commission. The three options are described below.

APS's Proposed 2012 – 2016 Budget Options

	Option 1	Option 2	Option 3
2012 Budget	$129.2 M	$141.2 M	$151.5 M
2012 – 2016 Budget	$783.1 M	$810.2 M	$873.8 M
RES Adjustor Rate per kilowatt-hour	$0.013586	$0.014907	$0.016037
RES Adjustor Residential Cap	$5.43	$5.96	$6.41
Res Adjustor Non-Residential (under 3 MW) cap	$201.84	$221.47	$238.27
RES Adjustor Non-Residential (3 MW and over) cap	$605.53	$664.40	$714.81

- **Option 1** represents only the energy needed to meet either the RES requirements or the Settlement requirement. To fully implement Option 1, a total of $129.2 million will be needed. The 2012 budget provides $70.7 million allocation for renewable generation projects, $20 million allocated for residential DE programs, and no allocation for non-residential DE.[2]

[1] The Company projects that it must procure approximately 502,500 megawatt-hour of additional energy, or approximately 300 MW of additional photovoltaic-equivalent capacity.

[2] Because APS will have sufficient non-residential DE energy production by year-end 2011 to exceed APS's compliance requirement both in 2012 and throughout the five-year period described in this Plan, no additional non-residential DE installations are needed for APS to achieve compliance with its non-residential DE requirement in 2012.

- **Option 2** represents an approach that falls between Options 1 and 3, and seeks to balance a commitment to meet or exceed annual RES requirements with the moderation of budgets and capacity based on existing program performance. To fully implement Option 2, a total of $141.2 million will be needed. The 2012 budget provides $70.7 million allocation for renewable generation projects, $29.9 million allocated for residential DE programs, and $2.1 million allocation for non-residential DE.

- **Option 3** reflects continued expansion of DE renewable energy development. To fully implement Option 3, a total of $151.5 million will be needed. The 2012 budget provides $70.7 million allocation for renewable generation projects, $40 million allocated for residential DE programs, and $2.3 million allocation for non-residential DE.

A few additional key elements also reflected in this Plan are provided below:

- Modifications to the Interconnection Process to include non-FERC projects interconnecting at or above the 69kV level;

- Refinements to the Schools and Government Program's Project Ranking Matrix to better evaluate a school's economic status;

- APS's proposed Integrated Energy Pilot, explores the coordinated integration of utility smart grid technologies and customer offerings including energy efficiency, renewable energy and demand response;

- Installation of production meters on all residential and non-residential up-front ("UFI") incentive photovoltaic installations on both new installations and incrementally on all previously installed customer sited systems;

- Per Decision No. 72022, APS is proposing that all non-residential production-based incentive ("PBI") project applications must be required to pay a refundable Reservation Deposit in order to retain a reservation;

- APS will require in 2012 that all applications for its residential UFI program include an executed contract between the customer and solar installer/developer and complete technical specifications for the projects;

- APS is proposing to reduce the PBI rate offerings for the 15-year and 20-year offerings to the levels originally proposed for 2013;

APS has also made changes to the Distributed Energy Administration Plan including:

- To remain consistent with the incentive adjustments for renewable technologies, APS is decreasing the incentive for residential geothermal resources from $0.90/kWh to $0.80/kWh;

- APS is expanding the requirement to submit a Form W-9 to all customers who receive an incentive through the Company's renewable energy incentive program to the owner of the system; and

- APS proposes a incentive prorate calculator to account for the anticipated reduced energy savings for installs not installed in an optimal manner.

Exhibit C

APS Renewable Energy Standard Implementation Plan Power Point Summary

Arizona Public Service Company 2012 Renewable Energy Standard Implementation Plan

July 1, 2011

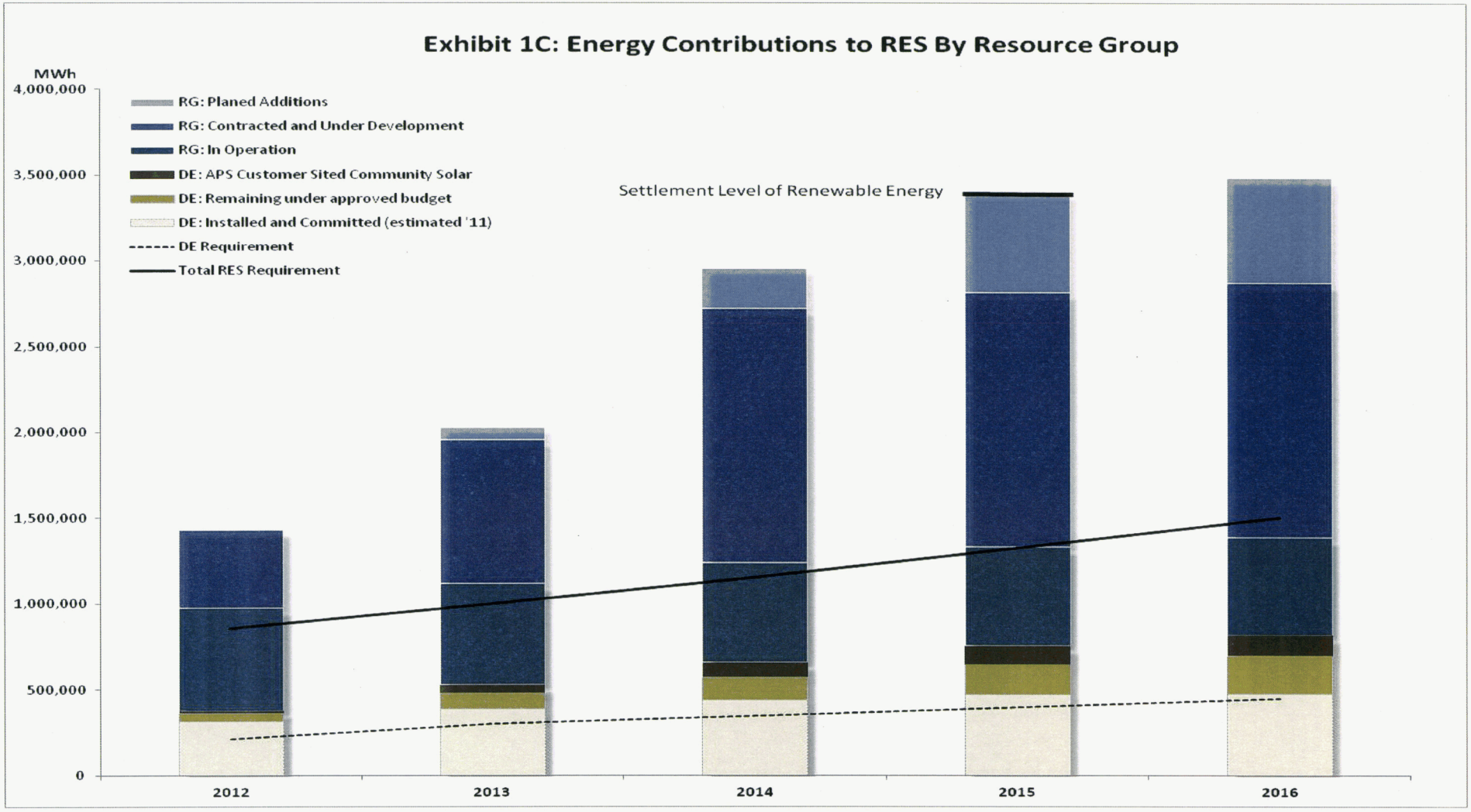
aps

2012 Implementation Plan Overview

- APS Renewable Energy Standard Requirement and Settlement Compliance
- 2012 Program Options
- "Gap" Energy Procurement Strategy
- 2012 Residential DE
- Five-Year Residential DE Options
- Five-Year Non-Residential DE Options
- 2012 Proposed Program Modifications

aps

RES Requirement and Settlement Compliance



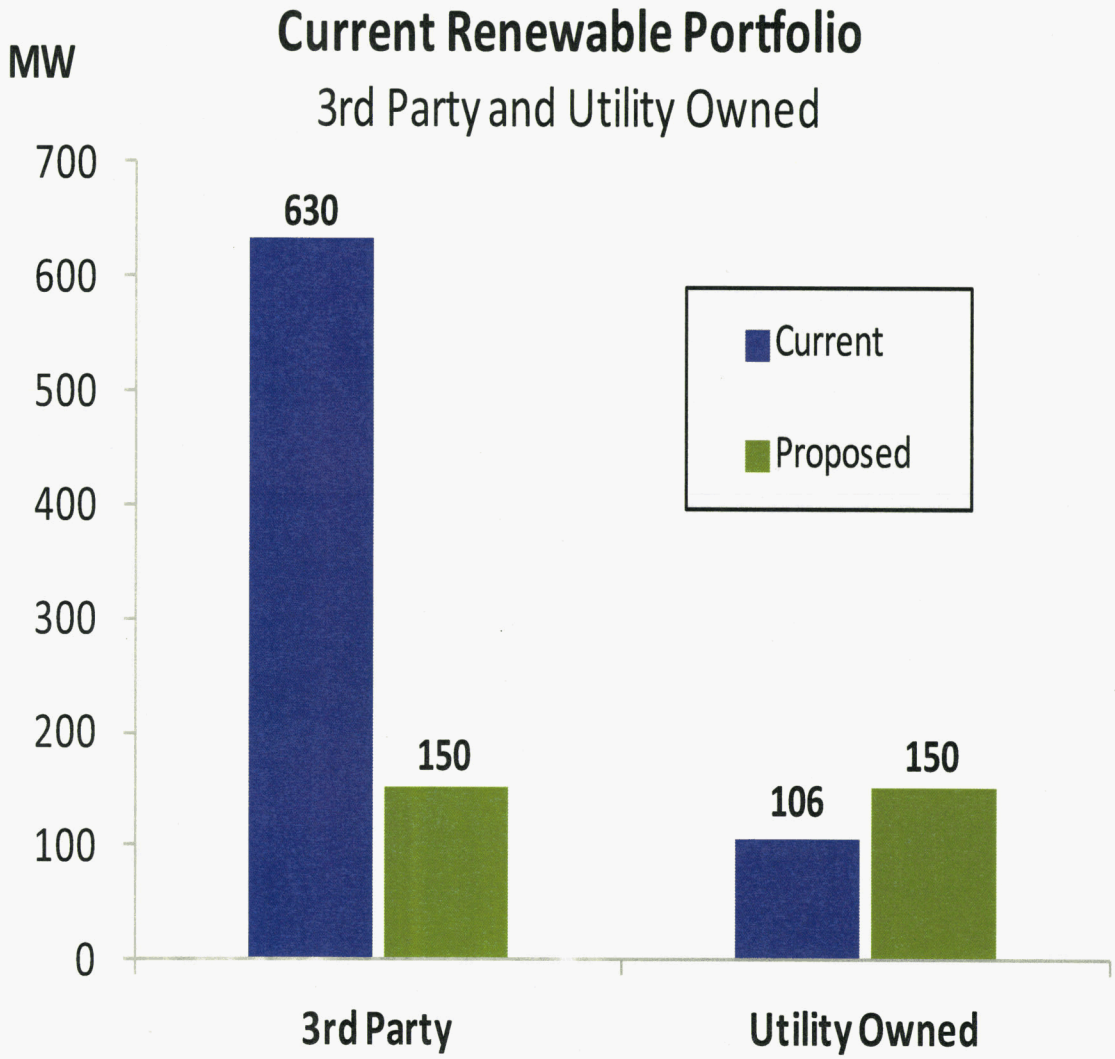
- "Gap" energy/planned additions is approximately 300 MW of PV capacity in 2015

2012 Program Options

	Options	Option 1	Option 2	Option 3
150 MW Third Party and Customer Sited Projects	**Third-party PPAs for Renewable Generation**	Emphasis on utility-scale, central station RG *150 MW*	Moderated amount of RG, allowing for some non-residential incentive program capacity *125 MW*	Less RG capacity to support DE emphasis *100 MW*
	Non-residential Distributed Energy Incentives	Existing commitments achieve compliance, no new incentives offered *0 MW*	Limit incentives to small and medium projects only *25 MW*	Continue incentives for all project size categories *50 MW*
	Residential Distributed Energy Incentives	Achieve annual compliance target only *$20 M*	Exceed compliance in 2011, maintain margin through 2016 *~$30 M*	$40M budget in 2012, reduced by $5M annually to 2016 *$40 M*
150 MW Third-party developed, APS owned projects	AZ Sun Program Expansion, Schools and Government Program expansion and other customer-sited community solar projects			
2012 Budget		**$ 129.2 million**	**$ 141.2 million**	**$ 151.5 million**
2012 RES Adjustor (Residential Cap)		**$5.43**	**$5.96**	**$6.41**
2012 – 2016 Program Budget		**$ 783.1 million**	**$ 810.2 million**	**$ 873.8 million**

aps

"Gap" Energy Procurement Strategy



- Proposal balances opportunities for third-party developers and long-term customer costs
- Creates opportunities for projects at key locations within the APS system

Third-Party Projects

300 MW "Gap"

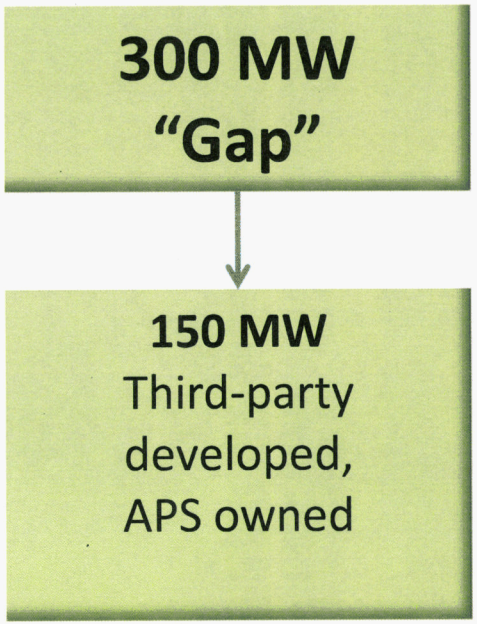
150 MW
3rd-party developed and owned, commercial incentive options

	Option 1	Option 2	Option 3
PPAs	**150 MW**	**125 MW**	**100 MW**
Incentive-Based (Non-Res)	**0 MW**	**25 MW**	**50 MW**
Composition	**--**	**$2M UFI $30M Lifetime (Medium)**	**$2M UFI $60M Lifetime (Med. & Large)**

- Multiple solicitation opportunities available for PPAs in 2012

aps

APS-Owned Projects

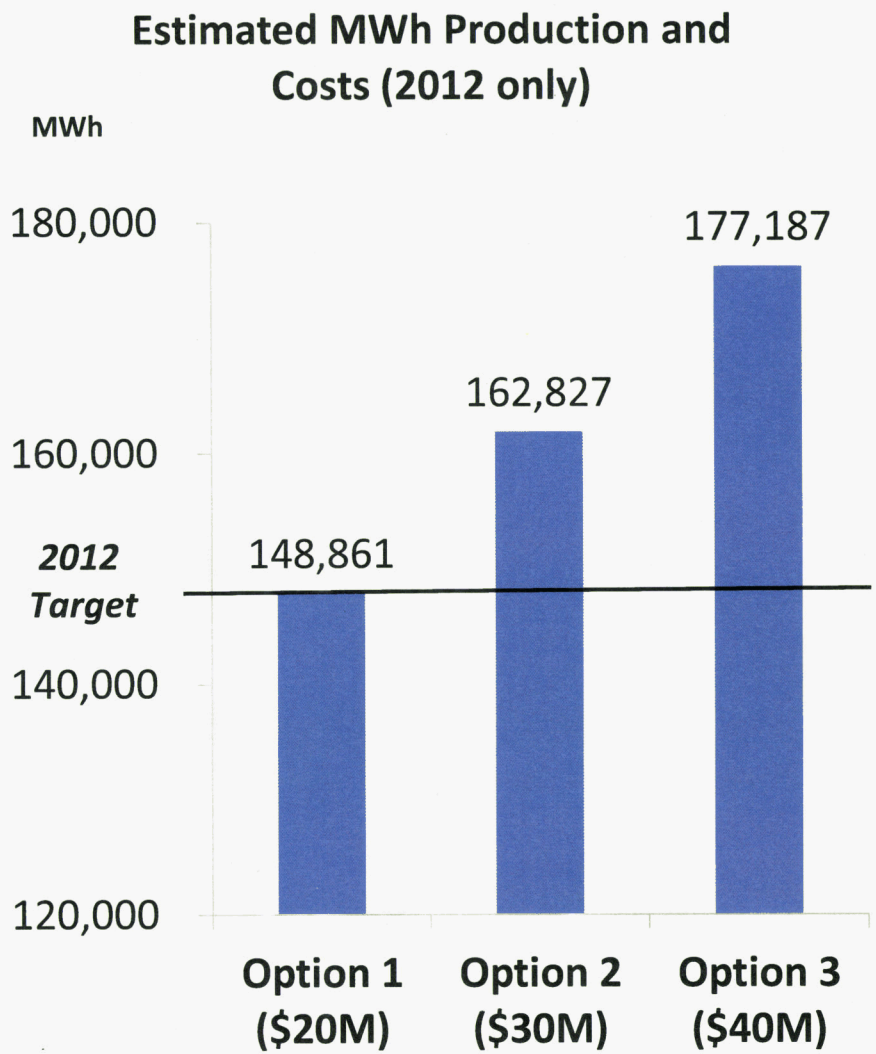


- Additional 100 MW AZ Sun program, projects in-service 2013/2014/2015
- 25 MW customer-sited solar on schools and government and municipal facilities
- 25 MW future community-based DE installations

- Continues opportunities for third-party developers through solicitations and turn-key construction

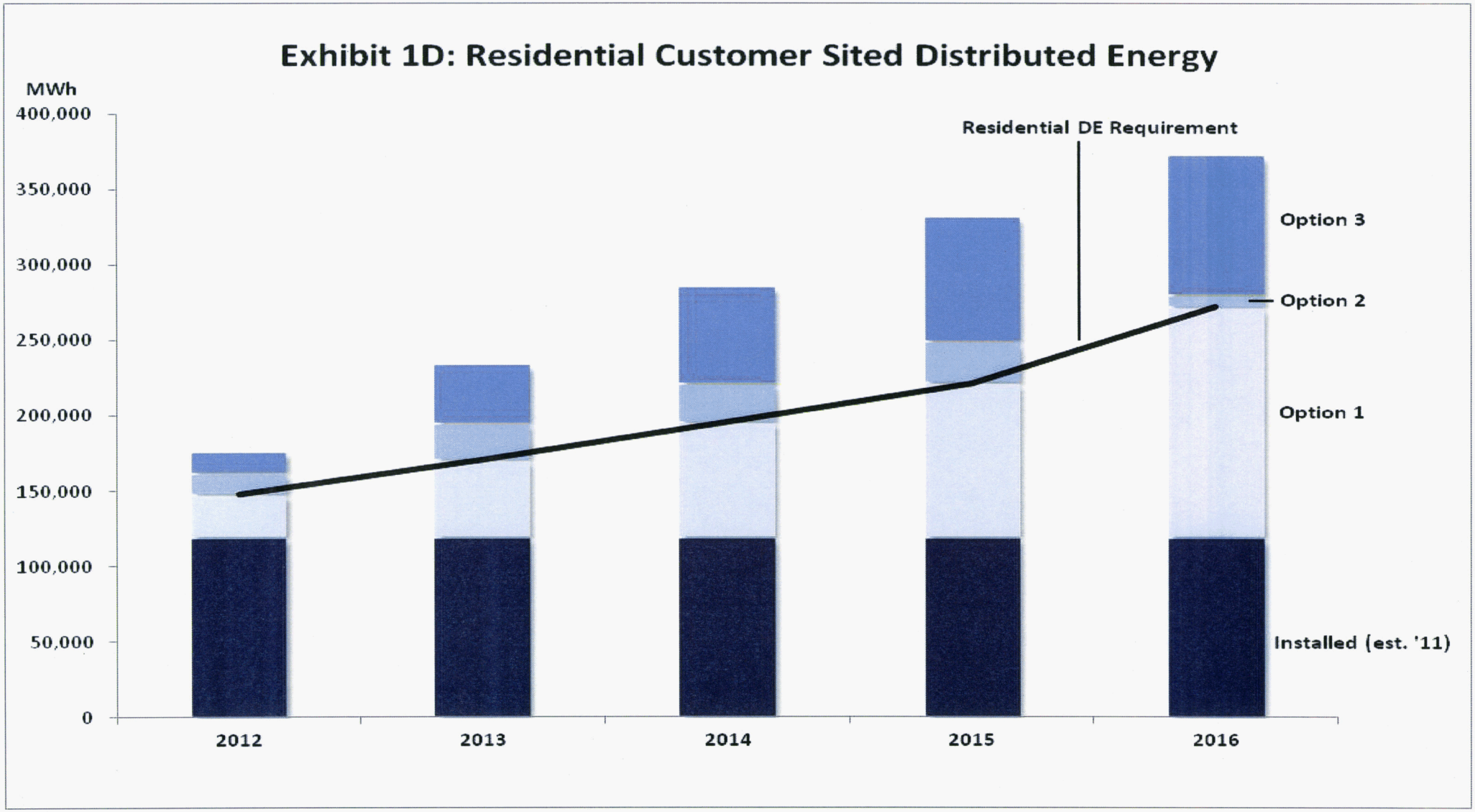
aps

2012 Residential DE



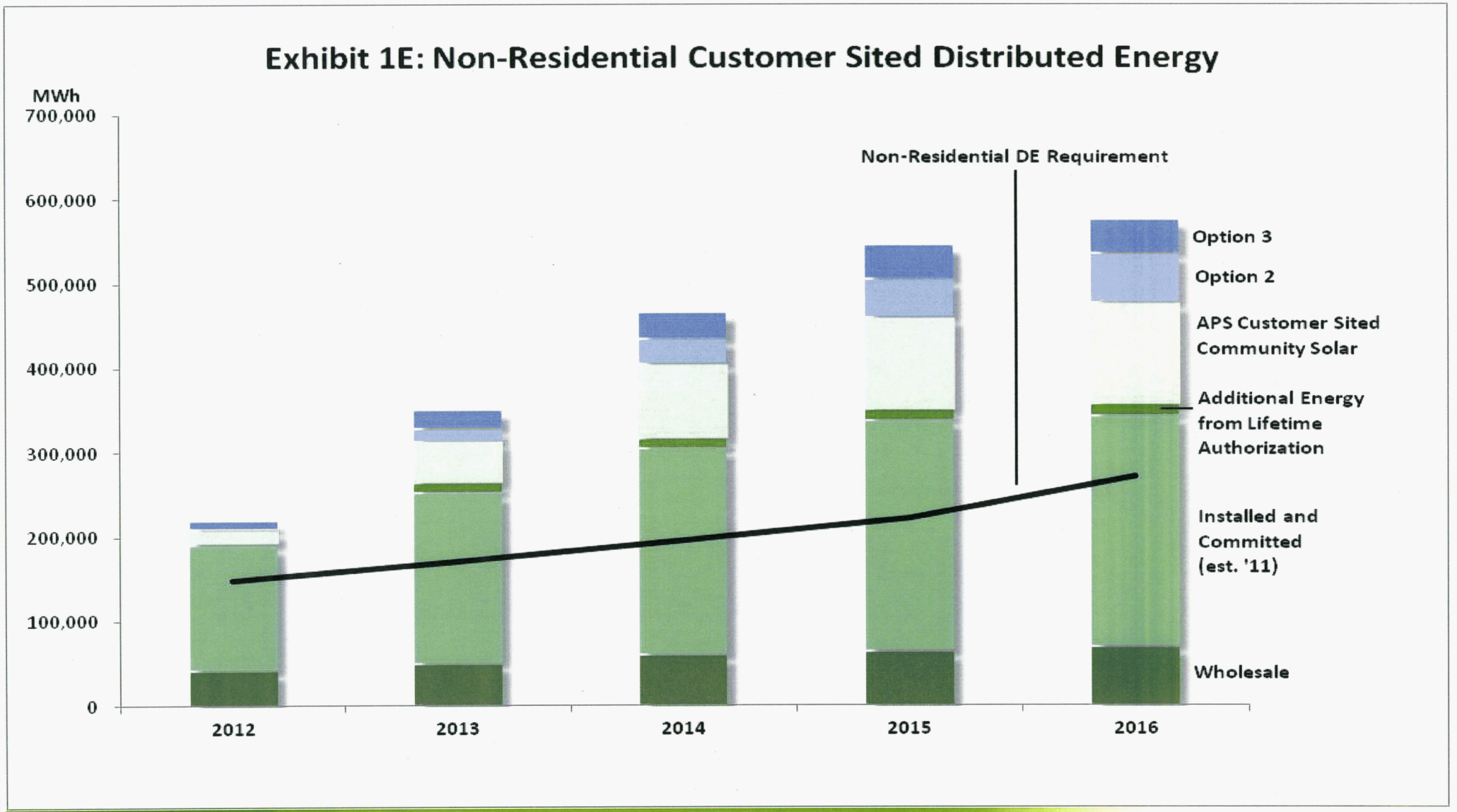
- Option 1 – meet RES Requirement
- Option 2 – expand program based on expected production by year-end 2012
- Option 3 –$40M option for Commission consideration

Five-Year Residential DE Options



aps

Five-Year Non-Residential DE Options



2012 Proposed Program Modifications Include:

- Integrated Energy Efficiency Pilot - Integration of smart grid, energy efficiency, and renewables
- Refinements to the Schools and Government project ranking matrix
- Schools & Government PV PBI level reduced to 2013 levels in 2012

2012 Proposed Program Modifications Include:

- Proposal for a refundable security deposit of 5% of total lifetime incentive for non-residential PBI projects
- Installation of production meters for residential and non-residential up-front incentive PV installations
- Revisions to APS's Non-FERC interconnection to include studies for projects at or above 69kV
- Signed contract requirement for residential PV applications

[redacted]

aps

Exhibit D

Proposed Rate Rider Schedule SGSP
Schools and Government Solar Program

Clean and Redlined Versions

RATE RIDER SCHEDULE SGSP
SCHOOLS AND GOVERNMENT SOLAR PROGRAM

AVAILIBILITY

This rate schedule is available in all territory served by the Company at all points where facilities of adequate capacity and the required phase and suitable voltage are adjacent to the sites served. The rate schedule was approved by the Arizona Corporation Commission ("ACC") in Decision Nos. 72022, 72174, and XXXXX.

APPLICATION

This rate schedule shall apply to retail Standard Offer electric service for eligible public elementary and secondary schools (K-12), including charter schools, and eligible government customers served under rate schedules E-32 S, E-32 M, E-32 L, E-32TOU S, E-32TOU M, E-32TOU L, GS-SCHOOLS M, GS-SCHOOLS L, E-34, and E-35 or their successor rate schedules as approved by the ACC. All provisions of the customer's current applicable rate schedule will apply in addition to the charges and credits defined within this rate schedule. Rate Rider Schedule SGSP may not be used in conjunction with any of the Company's partial requirements rate schedules.

A. Rural Schools Solar Program

Eligibility shall be determined by the Company based on the following requirements:

(1) The customer must be an economically challenged school as defined as having a per pupil available bonding capacity of $8,000 or less and 60% or more of its students participating in free or reduced lunch program;
(2) The customer facility must be located in a designated rural area as classified by the U.S. Census Bureau;
(3) The customer must provide an alternate solar proposal from a third-party not affiliated with APS; and
(4) The customer must be a participant in the Rural Schools Solar Program and therefore meet the program requirements including but not limited to (a) granting the Company an easement to install, own, operate and maintain a solar photovoltaic system on customer's premises and (b) meeting the technical requirements for the customer's premises.

The Rural Schools Solar Program will be limited to 8 MW-DC total capacity of all participating solar photovoltaic systems, on a first come first served basis, based on the order in which the applications for the program are received by the Company.

B. Schools and Government Solar Expansion Program

Eligibility for metro public elementary and secondary schools shall be determined by the Company based on the following requirements:

(1) The customer must be an economically challenged school as defined as having a per pupil available bonding capacity of $8,000 or less and 60% or more of its students participating in free or reduced lunch program;
(2) The customer must provide an alternate solar proposal from a third-party not affiliated with APS; and
(3) The customer must be a participant in the Schools and Government Solar Expansion Program and therefore meet the program requirements including but not limited to (a) granting the Company an easement to install, own, operate and maintain a solar photovoltaic system on customer's premises and (b) meeting the technical requirements for the customer's premises.

Eligible government customers shall include sites that are owned and occupied by a federal, state, or local government entity, including institutions of higher learning, as determined by the Company.

The Schools and Government Solar Expansion Program will be limited to 25 MW-AC total capacity of all participating solar photovoltaic systems, on a first come first served basis, based on the order in which the applications for the program are received by the Company.

aps

RATE RIDER SCHEDULE SGSP
SCHOOLS AND GOVERNMENT SOLAR PROGRAM

TERM

The Solar Charge herein shall remain in effect for 20 years from the customer's effective date. Customers can discontinue participation in this rate schedule at any time without penalty.

SOLAR OPTIONS

The solar photovoltaic equipment size options available under this rate schedule shall be less than or equal to 350 kW-DC of nominal rated capacity for customers with a K-8 school or facilities totaling 75,000 square feet or less at the site where the solar equipment is installed. For customers with a high school or facilities totaling more than 75,000 square feet the solar equipment shall be less than or equal to 550 kW-DC.

In addition, the solar equipment capacity (kW-AC) shall not be greater than 125% of the customer's connected load (kW-AC) as determined in accordance to rate schedule EPR-6 and A.A.C. R14-2-2302, nor shall the Solar Energy be more than 100% of the customer's metered kWh for the previous 12 months. Both of these limitations shall be determined at the time of initial qualification for the rate.

DETERMINATION OF SOLAR ENERGY

The Solar Energy, which is the nominal expected monthly kWh output from the photovoltaic solar equipment over time, shall be derived by multiplying the kW-DC rating of the photovoltaic equipment by an average monthly production factor (kWh-AC per kW-DC), as determined by the Company. The monthly production factor is 90 kWh-AC per kW-DC. For billing purposes, the Solar Energy in any month shall not exceed the customer's metered kWh used in computing the monthly bill. For totalized metering service provided under Service Schedule 4, the Solar Energy shall not exceed the metered kWh from the single service entrance section where the solar facility is installed.

RATES

The customer's monthly bill shall be calculated in accordance with their current applicable rate schedule except that:

(1) The monthly bill will include a Solar Charge, which is the Solar Energy multiplied by the per kWh charges listed below.

Applicable Retail Rate Schedule	Solar Charge per kWh
E-32 S, E-32 M, E-32 L	$0.07665
E-32TOU S, E-32TOU M, E-32TOU L	$0.05502
GS-SCHOOLS M, GS-SCHOOLS L	$0.07571
E-34	$0.04236
E-35	$0.04128

(2) The monthly bill will be based on the Customer's total metered usage net of the Solar Energy applied to all unbundled kWh charges and adjustments in the customer's current applicable rate schedule, where the netted kWh shall not be less than zero. The netting shall be applied as follows:

- E-32TOU S, E-32TOU M, E-32TOU L, E-35 - 50% of Solar Energy shall be netted from on-peak kWh, 50% from off-peak kWh. If the net kWh is less than zero for either the on-peak or off-peak period, the remaining kWh shall be netted from the other time period, where the netted amount shall not be less than zero.

aps

RATE RIDER SCHEDULE SGSP
SCHOOLS AND GOVERNMENT SOLAR PROGRAM

RATES (cont)

- E-32 S, E-32 M, E-32 L - Solar Energy shall be netted 60% from the first tier kWh level and 40% from the second tier kWh level. If the netted kWh is less than zero for either tier the remaining kWh shall be netted against the other kWh tier, where the netted amount shall not be less than zero.

- GS-SCHOOLS M, GS-SCHOOLS L – Solar Energy shall be netted from the on-peak, shoulder-peak and off-peak kWh according to the following allocation:

Season	Time Period		
	On-Peak	Shoulder-Peak	Off-Peak
Summer Peak (Jun-Aug)	15.0%	35.0%	50.0%
Summer Shoulder (May, Sep & Oct)	15.0%	35.0%	50.0%
Winter (Nov-Apr)	20.0%	10.0%	70.0%

  If the net kWh is less than zero in any period, the remaining kWh shall be applied first to the on-peak, and then the shoulder-peak, and the off-peak period if necessary, where the resulting kWh in any period shall not be less than zero.

- E-34 - Solar Energy shall be netted from the kWh level, where the resulting kWh shall not be less than zero.

- Any reductions to the monthly kWh billed under Schedule RES and Schedule EIS due to participation in green power schedules GPS-1, GPS-2, GPS-3 and Solar-3 will be capped at the customer's total metered kWh net of the Solar Energy provided in Schedule SGSP.

- The Solar Energy shall be netted against the metered kWh from the single service entrance section where the solar facility is installed and shall not be netted against metered kWh from any other metered kWh at other points of delivery at the same customer site or other sites.

TERMS AND CONDITIONS

Service under this rate schedule is subject to the Company's Terms and Conditions of the customer's parent rate schedule. This schedule has provisions that may affect the customer's bill.

aps

RATE RIDER SCHEDULE ~~R~~SGSP
~~RURAL~~ SCHOOLS AND GOVERNMENT SOLAR PROGRAM
~~RIDER RATE~~

AVAILIBILITY

This rate schedule is available in all territory served by the Company at all points where facilities of adequate capacity and the required phase and suitable voltage are adjacent to the sites served. The rate schedule was approved by the Arizona Corporation Commission ("ACC") in Decision Nos. 72022, ~~and~~ 72174, and XXXXX.

APPLICATION

This rate schedule shall apply to retail Standard Offer electric service for eligible public elementary and secondary schools (K-12), including charter schools, and eligible government customers served under rate schedules E-32 S, E-32 M, E-32-L, E-32TOU S, E-32TOU M, E-32TOU L, GS-SCHOOLS M, ~~and~~ GS-SCHOOLS L, E-34, and E-35 or their successor rate schedules as approved by the ACC. All provisions of the customer's current applicable rate schedule will apply in addition to the charges and credits defined within this rate schedule. Rate Rider Schedule ~~R~~SGSP may not be used in conjunction with any of the Company's partial requirements rate schedules.

A. Rural Schools Solar Program

Eligibility shall be determined by the Company based on the following requirements:

(1) The customer must be an economically challenged school as defined as having a per pupil available bonding capacity of $8,000 or less and 60% or more of its students participating in free or reduced lunch program;
(2) The customer facility must be located in a designated rural area as classified by the U.S. Census Bureau;
(3) The customer must provide an alternate solar proposal from a third-party not affiliated with APS; and
(4) The customer must be a participant in the Rural Schools Solar Program and therefore meet the program requirements including but not limited to (a) granting the Company an easement to install, own, operate and maintain a solar photovoltaic system on customer's premises and (b) meeting the technical requirements for the customer's premises.

The Rural Schools Solar Program will be limited to 8 MW-DC total capacity of all participating solar photovoltaic systems, on a first come first served basis, based on the order in which the applications for the program are received by the Company.

B. Schools and Government Solar Expansion Program

Eligibility for metro public elementary and secondary schools shall be determined by the Company based on the following requirements:

(1) The customer must be an economically challenged school as defined as having a per pupil available bonding capacity of $8,000 or less and 60% or more of its students participating in free or reduced lunch program;
(2) The customer must provide an alternate solar proposal from a third-party not affiliated with APS; and
(3) The customer must be a participant in the Schools and Government Solar Expansion Program and therefore meet the program requirements including but not limited to (a) granting the Company an easement to install, own, operate and maintain a solar photovoltaic system on customer's premises and (b) meeting the technical requirements for the customer's premises.

Eligible government customers shall include sites that are owned and occupied by a federal, state, or local government entity, including institutions of higher learning, as determined by the Company.

The Schools and Government Solar Expansion Program will be limited to 25 MW-AC total capacity of all participating solar photovoltaic systems, on a first come first served basis, based on the order in which the applications for the program are received by the Company.

aps

RATE RIDER SCHEDULE ~~R~~SGSP
~~RURAL~~ SCHOOLS AND GOVERNMENT SOLAR PROGRAM
~~RIDER RATE~~

TERM

The Solar Charge herein shall remain in effect for 20 years from the customer's effective date. Customers can discontinue participation in this rate schedule at any time without penalty.

SOLAR OPTIONS

The solar photovoltaic equipment size options available under this rate schedule shall be less than or equal to 350 kW-DC of nominal rated capacity for customers with a K-8 school or facilities totaling 75,000 square feet or less at the site where the solar equipment is installed. For customers with a high school or facilities totaling more than 75,000 square feet the solar equipment shall be less than or equal to 550 kW-DC.

In addition, the solar equipment capacity (kW-AC) shall not be greater than 125% of the customer's connected load (kW-AC) as determined in accordance to rate schedule EPR-6 and A.A.C. R14-2-2302, nor shall the Solar Energy be more than 100% of the customer's metered kWh for the previous 12 months. Both of these limitations shall be determined at the time of initial qualification for the rate.

DETERMINATION OF SOLAR ENERGY

The Solar Energy, which is the nominal expected monthly kWh output from the photovoltaic solar equipment over time, shall be derived by multiplying the kW-DC rating of the photovoltaic equipment by an average monthly production factor (kWh-AC per kW-DC), as determined by the Company. The monthly production factor is 90 kWh-AC per kW-DC. For billing purposes, the Solar Energy in any month shall not exceed the customer's metered kWh used in computing the monthly bill. For totalized metering service provided under Service Schedule 4, the Solar Energy shall not exceed the metered kWh from the single service entrance section where the solar facility is installed.

RATES

The customer's monthly bill shall be calculated in accordance with their current applicable rate schedule except that:

(1) The monthly bill will include a Solar Charge, which is the Solar Energy multiplied by the per kWh charges listed below.

Applicable Retail Rate Schedule	Solar Charge per kWh
E-32 S, E-32 M, E-32 L	$~~0.092930~~0.07665
E-32TOU S, E-32TOU M, E-32TOU L	$~~0.058550~~0.05502
GS-SCHOOLS M, GS-SCHOOLS L	$~~0.071580~~0.07571
E-34	$0.04236
E-35	$0.04128

(2) The monthly bill will be based on the Customer's total metered usage net of the Solar Energy applied to all unbundled kWh charges and adjustments in the customer's current applicable rate schedule, where the netted kWh shall not be less than zero. The netting shall be applied as follows:

- E-32TOU S, E-32TOU M, E-32TOU L, E-35 - 50% of Solar Energy shall be netted from on-peak kWh, 50% from off-peak kWh. If the net kWh is less than zero for either the on-peak or off-peak period, the remaining kWh shall be netted from the other time period, where the netted amount shall not be less than zero.

aps

RATE RIDER SCHEDULE ~~R~~SGSP
~~RURAL~~ SCHOOLS AND GOVERNMENT SOLAR PROGRAM
~~RIDER RATE~~

RATES (cont)

- E-32 S, E-32 M, E-32 L - Solar Energy shall be netted 60% from the first tier kWh ~~charges~~level and 40% from the second tier kWh level. If the netted kWh is less than zero for either tier the remaining kWh shall be netted against the other kWh~~second~~ tier ~~of kWh charges~~, where the netted amount shall not be less than zero.

- GS-SCHOOLS M, GS-SCHOOLS L – Solar Energy shall be netted from the on-peak, shoulder-peak and off-peak kWh according to the following allocation:

Season	Time Period		
	On-Peak	Shoulder-Peak	Off-Peak
Summer Peak (Jun-Aug)	15.0%	35.0%	50.0%
Summer Shoulder (May, Sep & Oct)	15.0%	35.0%	50.0%
Winter (Nov-Apr)	20.0%	10.0%	70.0%

If the net kWh is less than zero in any period, the remaining kWh shall be applied first to the on-peak, and then the shoulder-peak, and the off-peak period if necessary, where the resulting kWh in any period shall not be less than zero.

- E-34 - Solar Energy shall be netted from the kWh level, where the resulting kWh shall not be less than zero.

- Any reductions to the monthly kWh billed under Schedule RES and Schedule EIS due to participation in green power schedules GPS-1, GPS-2, GPS-3 and Solar-3 will be capped at the customer's total metered kWh net of the Solar Energy provided in Schedule ~~R~~SGSP.

- The Solar Energy shall be netted against the metered kWh from the single service entrance section where the solar facility is installed and shall not be netted against metered kWh from any other metered kWh at other points of delivery at the same customer site or other sites.

TERMS AND CONDITIONS

Service under this rate schedule is subject to the Company's Terms and Conditions of the customer's parent rate schedule. This schedule has provisions that may affect the customer's bill.

Exhibit E

Proposed Service Schedule 6
Interconnection Study Services and
Fees for Non-FERC Generation Facilities

Clean and Redlined Versions

aps

SERVICE SCHEDULE 6
INTERCONNECTION STUDY SERVICES AND FEES FOR NON-FERC GENERATION FACILITIES

1. APPLICABILITY

1.1 The services, provisions and fees in this schedule shall apply to an entity (Applicant) desiring to interconnect a generating facility to the Arizona Public Service (APS or Company) power delivery system that is not otherwise subject to the Federal Energy Regulatory Commission (FERC) interconnection processes or rules. *See* 18 C.F.R. §292.306; *Western Massachusetts Electric Co.*, 61 FERC ¶61,182 at p. 61,661-62 (1992), *aff'd* 165 F.3d 922, 926 (D.C. Cir. 1999).

1.2 This schedule shall only apply to: 1) for third-party-owned generation, a Qualifying Facility as defined in 18 C.F.R. §292.203, for which the total generation output that is transmitted to the APS power delivery system is sold directly to APS; and 2) for APS-owned generation, generation that otherwise would meet the requirements in 18 C.F.R. §292.203.

1.3 This schedule shall not apply to a generating facility that is interconnected on the load side of an APS retail customer meter and is primarily intended to serve the customer's electricity requirements, including, for example, a net metering facility as defined in A.A.C. R14-2-2302.

2. DESCRIPTION OF STUDY SERVICES

2.1 Feasibility Study - APS will conduct a preliminary review of the potential impacts of the proposed generating facility on the APS power delivery system. The study will assess the expected capacity requirements of the proposed generator on the delivery system compared with the available system capacity at the point of interconnection, and will identify any potential overload issues for the delivery system and circuit protection devices. Additionally, this study will provide an initial assessment of the complexity and likely costs for the proposed interconnection.

2.1.1 Applicant shall identify the proposed project site location and anticipated project output and voltage prior to commencement of the study.

2.1.2 Although the Feasibility Study is optional, no system impact or cost information will be provided by APS without the study and payment of the associated fee.

2.2 System Impact Study - APS will conduct a full technical review of the project's impact on the APS power delivery system, including power flow, stability analysis (69 kV and above only), APS system protective device coordination, system protection schemes, and voltage drop. This study will determine if any upgrades to APS's power delivery system are required to interconnect the project as designed.

2.2.1 Although the System Impact Study is optional, no related information will be provided by APS without the study and payment of the associated fee.

2.3 Facilities Study - APS will conduct a comprehensive analysis of the actual construction requirements for the APS power delivery system, based on the information from the Feasibility Study and System Impact Study or equivalent information provided by the Applicant or third party. The study shall provide detailed estimated costs of construction and milestones associated with the requirements.

2.3.1 This study is required for interconnection to the Company's power delivery system.

aps

SERVICE SCHEDULE 6
INTERCONNECTION STUDY SERVICES AND FEES FOR NON-FERC GENERATION FACILITIES

2.3.2 If the Applicant chooses to forgo the Feasibility and System Impact Studies, the technical analysis normally included in the System Impact Study may be conducted as part of the Facilities Study.

2.4 All services in this schedule are distinct from any similar-termed services provided by APS under FERC interconnection processes, which are not governed by this schedule.

3. STUDY FEES

3.1 Feasibility Study:

3.1.1 Interconnections below 69 kV – $5,000 per study (non-refundable).

3.1.2 Interconnections 69 kV and above – Applicant will pay APS's actual cost of performing study (non-refundable).

3.2 System Impact Study:

3.2.1 Interconnections below 69 kV – $15,000 per study (non-refundable). Fee shall be reduced to $10,000 if a Feasibility Study has been completed by APS for the specific project.

3.2.2 Interconnections 69 kV and above – Applicant will pay APS's actual cost of performing study (non-refundable).

3.3 Facilities Study:

3.3.1 All interconnections – Applicant pays APS's actual cost of performing study (non-refundable).

4. PAYMENTS

4.1 For interconnections below 69 kV, study fees under sections 3.1.1 and 3.2.1 will be due prior to the commencement of the study.

4.2 For interconnections 69 kV and above, Applicant shall provide a $20,000 deposit to APS prior to the commencement of the Feasibility Study under section 3.1.2 and a $40,000 deposit to APS prior to the commencement of the System Impact Study under section 3.2.2. At the completion of studies under sections 3.1.2 and 3.2.2, the Applicant shall pay any remaining fees above the deposit to APS or shall be refunded any excess deposit amount by APS.

4.3 For all interconnections, Applicant shall provide a $55,000 deposit to APS prior to the commencement of the Facilities Study under section 3.3. At the completion of the study, the Applicant shall pay any remaining fees above the deposit to APS or shall be refunded any excess deposit amount by APS.

5. FACILITIES

The construction or installation of Interconnection facilities will be completed in accordance with the provisions of a separate agreement or contract as executed between the parties.

SERVICE SCHEDULE 6
INTERCONNECTION STUDY SERVICES AND FEES FOR NON-FERC ~~WHOLESALE~~ GENERATION FACILITIES

1. APPLICABILITY

1.1 The services, provisions and fees in this schedule shall apply to an entity (~~Developer~~Applicant) desiring to interconnect a generating facility to the Arizona Public Service (APS or Company) power delivery system that is not otherwise subject to the Federal Energy Regulatory Commission (FERC) interconnection processes or rules. *See* 18 C.F.R. § 292.306; *Western Massachusetts Electric Co.*, 61 FERC ¶61,182 at p. 61,661-62 (1992), *aff'd* 165 F.3d 922, 926 (D.C. Cir. 1999).

1.2 This schedule shall only apply to: 1) for third-party-owned generation, a Qualifying Facility as defined in 18 C.F.R. § 292.203, for which the total generation output that is transmitted to the APS power delivery system is sold directly to APS; and 2) for APS-owned generation, generation that otherwise would meet the requirements in 18 C.F.R. §292.203.

1.3 This schedule shall not apply to a generating facility that is interconnected on the load side of an APS retail customer's meter and is primarily intended to serve the customer's electricity requirements, including, for example, a net metering facility as defined in A.A.C. R14-2-2302.

2. DESCRIPTION OF STUDY SERVICES

2.1 Feasibility Study - APS will conduct a preliminary review of the potential impacts of the proposed generating facility on the APS power delivery system. The study will assess the expected capacity requirements of the proposed generator on the delivery system compared with the available system capacity at the point of interconnection and identify any potential overload issues for the delivery system and circuit protection devices. Additionally, this study will provide an initial assessment of the complexity and likely costs for the proposed interconnection.

2.1.1 ~~The Developer~~ Applicant shall identify the proposed project site location and anticipated project output and voltage prior to commencement of the study.

2.1.2 Although the Feasibility Study is optional, no system impact or cost information will be provided by APS without the study and payment of the associated fee.

2.2 System Impact Study - APS will conduct a full technical review of the project's impact on the APS power delivery system, including power flow, stability analysis (69 kV and above only), APS system protective device coordination, system protection schemes and voltage drop. This study will determine if any upgrades to APS's power delivery system are required to ~~build and~~ interconnect the project as designed.

2.2.1 Although the System Impact Study is optional, no related information will be provided by APS without the study and payment of the associated fee.

2.3 Facilities Study - APS will conduct a comprehensive analysis of the actual construction requirements for the APS power delivery system, based on the information from the Feasibility Study and System Impact Study or equivalent information provided by the ~~Developer~~ Applicant~~or third party~~. The study shall provide ~~the~~ detailed estimated costs of construction and milestones ~~associated with the requirements~~.

2.3.1 This study is required for interconnection to the Company's power delivery system.

SERVICE SCHEDULE 6
INTERCONNECTION STUDY SERVICES AND FEES FOR NON-FERC ~~WHOLESALE~~ GENERATION FACILITIES

2.3.2 If the Applicant chooses to forgo the Feasibility and System Impact Studies, the technical analysis normally included in the System Impact Study may be conducted as part of the Facilities Study.

2.4 All services in this schedule are distinct from any similar-termed services provided by APS under FERC interconnection processes, which are not governed by this schedule.

3. STUDY FEES

3.1 Feasibility Study:

3.1.1 Interconnections below 69 kV - $5,000 per study (non-refundable).

3.1.2 Interconnections 69 kV and above – Applicant will pay APS's actual cost of performing study (non-refundable).

3.2 System Impact Study:

3.2.1 Interconnections below 69 kV - $15,000 per study (non-refundable). Fee shall be reduced to $10,000 if a Feasibility Study has been completed by APS for the specific project.

3.2.2 Interconnections 69 kV and above – Applicant will pay APS's actual cost of performing study (non-refundable).

3.3 Facilities Study: ~~- $100 per hour. The total fee shall be reduced by any payments received under subsections 3.1 and 3.2 for the specific project, where the net amount shall not be less than zero.~~

3.3.1 All interconnections – Applicant pays APS's actual cost of performing study (non-refundable).

4. PAYMENTS

4.1 ~~Payments of fees~~For interconnections below 69 kV, study fees under sections 3.1.1 and 3.2.1 will be due prior to the commencement of the study.

~~4.1~~4.2 For interconnections 69 kV and above, Applicant shall provide a $20,000 deposit to APS prior to the commencement of the Feasibility Study under section 3.1.2 and a $40,000 deposit to APS prior to the commencement of the System Impact Study under section 3.2.2. At the completion of the study, the Applicant shall pay any remaining fees above the deposit to APS or shall be refunded any excess deposit amount by APS.

~~4.2~~4.3 For ~~services under 3.3~~all interconnections, Applicant ~~, the customer~~ shall provide a $55,000 deposit to APS prior to the commencement of the ~~study~~Facilities Study under section 3.3. At the completion of the study the ~~customer~~ Applicant shall pay any remaining fees above the deposit to APS or shall be refunded any excess deposit amount by APS.

5. FACILITIES

The construction or installation of Interconnection facilities will be completed in accordance with the provisions of a separate agreement or contract as executed between the parties.

Exhibit F

Adjustment Schedule RES
Renewable Energy Standard
Proposed Option 1

Clean and Redlined Versions

ADJUSTMENT SCHEDULE RES
RENEWABLE ENERGY STANDARD

APPLICATION

The Renewable Energy Standard ("RES") Adjustor shall apply to all retail Standard Offer or Direct Access service, excluding kWh served in accordance with rate schedules Solar-2, Solar-3, and Adjustment Schedules GPS-1, GPS-2, and GPS-3. All provisions of the customer's current applicable rate schedule will apply in addition to the RES Adjustor. From time to time, the RES program spending requirements will be evaluated and if necessary the charge and/or caps may be modified by the Commission. Any new charges/caps will be applied in billing cycle 1 beginning in the month following Commission approval and will not be prorated. Details regarding the administration of this Adjustor can be found in the Company's Renewable Energy Standard Adjustment Schedule Plan of Administration. The RES Adjustor and the Demand Side Management Adjustor may be combined on the customer's bill and shown on the "Environmental Benefits Surcharge" line.

RATES

The bill shall be calculated at the following rates:

All kWh	$0.013586	per kWh

SURCHARGE LIMITS

The monthly total of the Renewable Energy Standard Adjustment Charge shall not exceed the following limits:

Residential Customers	$5.43	per service per month
Non-residential Customers	$201.84	per service per month
Non-residential Customers with demand of 3,000 kW or higher per month for three consecutive months	$605.53	per service per month

aps

ADJUSTMENT SCHEDULE RES
RENEWABLE ENERGY STANDARD

APPLICATION

The Renewable Energy Standard ("RES") Adjustor shall apply to all retail Standard Offer or Direct Access service, excluding kWh served in accordance with rate schedules Solar-2, Solar-3, and Adjustment Schedules GPS-1, GPS-2, and GPS-3. All provisions of the customer's current applicable rate schedule will apply in addition to the RES Adjustor. From time to time, the RES program spending requirements will be evaluated and if necessary the charge and/or caps may be modified by the Commission. Any new charges/caps will be applied in billing cycle 1 beginning in the month following Commission approval ~~in A.C.C. Decision No. 70654~~ and will not be prorated. Details regarding the administration of this Adjustor can be found in ~~A.A.C. R14-2-1808~~the Company's Renewable Energy Standard Adjustment Schedule Plan of Administration. The RES Adjustor and the Demand Side Management Adjustor may be combined on the customer's bill and shown on the "Environmental Benefits Surcharge" line.

RATES

The bill shall be calculated at the following rates:

All kWh	$~~0.0101320~~0.013586	per kWh

SURCHARGE LIMITS

The monthly total of the Renewable Energy Standard Adjustment Charge shall not exceed the following limits:

Residential Customers	$~~4.05~~5.43	per service per month
Non-residential Customers	$~~150.53~~201.84	per service per month
Non-residential Customers with demand of 3,000 kW or higher per month for three consecutive months	$~~451.60~~605.53	per service per month

Exhibit G

Adjustment Schedule RES
Renewable Energy Standard
Proposed Option 2

Clean and Redlined Versions

aps

ADJUSTMENT SCHEDULE RES
RENEWABLE ENERGY STANDARD

APPLICATION

The Renewable Energy Standard ("RES") Adjustor shall apply to all retail Standard Offer or Direct Access service, excluding kWh served in accordance with rate schedules Solar-2, Solar-3, and Adjustment Schedules GPS-1, GPS-2, and GPS-3. All provisions of the customer's current applicable rate schedule will apply in addition to the RES Adjustor. From time to time, the RES program spending requirements will be evaluated and if necessary the charge and/or caps may be modified by the Commission. Any new charges/caps will be applied in billing cycle 1 beginning in the month following Commission approval and will not be prorated. Details regarding the administration of this Adjustor can be found in the Company's Renewable Energy Standard Adjustment Schedule Plan of Administration. The RES Adjustor and the Demand Side Management Adjustor may be combined on the customer's bill and shown on the "Environmental Benefits Surcharge" line.

RATES

The bill shall be calculated at the following rates:

All kWh	$0.014907	per kWh

SURCHARGE LIMITS

The monthly total of the Renewable Energy Standard Adjustment Charge shall not exceed the following limits:

Residential Customers	$5.96	per service per month
Non-residential Customers	$221.47	per service per month
Non-residential Customers with demand of 3,000 kW or higher per month for three consecutive months	$664.40	per service per month

aps

ADJUSTMENT SCHEDULE RES
RENEWABLE ENERGY STANDARD

APPLICATION

The Renewable Energy Standard ("RES") Adjustor shall apply to all retail Standard Offer or Direct Access service, excluding kWh served in accordance with rate schedules Solar-2, Solar-3, and Adjustment Schedules GPS-1, GPS-2, and GPS-3. All provisions of the customer's current applicable rate schedule will apply in addition to the RES Adjustor. From time to time, the RES program spending requirements will be evaluated and if necessary the charge and/or caps may be modified by the Commission. Any new charges/caps will be applied in billing cycle 1 beginning in the month following Commission approval ~~in A.C.C. Decision No. 70654~~ and will not be prorated. Details regarding the administration of this Adjustor can be found in ~~A.A.C. R14-2-1808~~the Company's Renewable Energy Standard Adjustment Schedule Plan of Administration. The RES Adjustor and the Demand Side Management Adjustor may be combined on the customer's bill and shown on the "Environmental Benefits Surcharge" line.

RATES

The bill shall be calculated at the following rates:

All kWh	$~~0.0101320~~0.014907	per kWh

SURCHARGE LIMITS

The monthly total of the Renewable Energy Standard Adjustment Charge shall not exceed the following limits:

Residential Customers	$~~4.05~~5.96	per service per month
Non-residential Customers	$~~150.53~~221.47	per service per month
Non-residential Customers with demand of 3,000 kW or higher per month for three consecutive months	$~~451.60~~664.40	per service per month

Exhibit H

Adjustment Schedule RES
Renewable Energy Standard
Proposed Option 3

Clean and Redlined Versions

aps

ADJUSTMENT SCHEDULE RES
RENEWABLE ENERGY STANDARD

APPLICATION

The Renewable Energy Standard ("RES") Adjustor shall apply to all retail Standard Offer or Direct Access service, excluding kWh served in accordance with rate schedules Solar-2, Solar-3, and Adjustment Schedules GPS-1, GPS-2, and GPS-3. All provisions of the customer's current applicable rate schedule will apply in addition to the RES Adjustor. From time to time, the RES program spending requirements will be evaluated and if necessary the charge and/or caps may be modified by the Commission. Any new charges/caps will be applied in billing cycle 1 beginning in the month following Commission approval and will not be prorated. Details regarding the administration of this Adjustor can be found in the Company's Renewable Energy Standard Adjustment Schedule Plan of Administration. The RES Adjustor and the Demand Side Management Adjustor may be combined on the customer's bill and shown on the "Environmental Benefits Surcharge" line.

RATES

The bill shall be calculated at the following rates:

All kWh	$0.016037	per kWh

SURCHARGE LIMITS

The monthly total of the Renewable Energy Standard Adjustment Charge shall not exceed the following limits:

Residential Customers	$6.41	per service per month
Non-residential Customers	$238.27	per service per month
Non-residential Customers with demand of 3,000 kW or higher per month for three consecutive months	$714.81	per service per month

aps

ADJUSTMENT SCHEDULE RES
RENEWABLE ENERGY STANDARD

APPLICATION

The Renewable Energy Standard ("RES") Adjustor shall apply to all retail Standard Offer or Direct Access service, excluding kWh served in accordance with rate schedules Solar-2, Solar-3, and Adjustment Schedules GPS-1, GPS-2, and GPS-3. All provisions of the customer's current applicable rate schedule will apply in addition to the RES Adjustor. From time to time, the RES program spending requirements will be evaluated and if necessary the charge and/or caps may be modified by the Commission. Any new charges/caps will be applied in billing cycle 1 beginning in the month following Commission approval ~~in A.C.C. Decision No. 70654~~ and will not be prorated. Details regarding the administration of this Adjustor can be found in ~~A.A.C. R14-2-1808~~the Company's Renewable Energy Standard Adjustment Schedule Plan of Administration. The RES Adjustor and the Demand Side Management Adjustor may be combined on the customer's bill and shown on the "Environmental Benefits Surcharge" line.

RATES

The bill shall be calculated at the following rates:

All kWh	$~~0.010132~~0.016037	per kWh

SURCHARGE LIMITS

The monthly total of the Renewable Energy Standard Adjustment Charge shall not exceed the following limits:

Residential Customers	$~~4.05~~6.41	per service per month
Non-residential Customers	$~~150.53~~238.27	per service per month
Non-residential Customers with demand of 3,000 kW or higher per month for three consecutive months	$~~451.60~~714.81	per service per month

Exhibit I

Renewable Energy Standard
Adjustment Schedule
Proposed Plan of Administration

aps

RENEWABLE ENERGY STANDARD ADJUSTMENT SCHEDULE PLAN OF ADMINISTRATION

Original
Effective Date: XXXX
ACC Decision No: XXXX

General Description

This document describes the plan for administering Arizona Public Service Company's ("APS" or the "Company") Adjustment Schedule RES, Renewable Energy Standard ("Schedule RES"). Schedule RES is the tariff required by the Arizona Corporation Commission's ("Commission") Renewable Energy Standard and Tariff rules (the "Rules") approved in Decision No. 69127 (November 14, 2006) and codified in A.A.C. R14-2-1801 *et. seq.*, which provides for recovery of the costs incurred by the Company to meet its annual renewable energy requirement as set forth in the Rules.[1]

Allowable Costs

Schedule RES shall recover the cost of renewable programs included in the Company's annual Renewable Energy Standard Implementation Plan ("RES Plan"), and approved by the Commission, that are not otherwise recovered in base rates or other recovery mechanism. Allowable Costs include, but are not limited to, program development, program implementation, purchased power costs not recovered through the Power Supply Adjustor, customer incentives, customer education and communication, technical assistance and training, marketing and advertising, administrative and general expense, monitoring and evaluation, revenue requirements associated with renewable ownership programs, and other relevant costs.

Revenue requirements associated with renewable ownership programs include depreciation expense, operating and maintenance expense, property tax, and return on both debt and equity using the pre-tax weighted average cost of capital approved in the Company's most recent general rate case.

Balancing Account

Actual Allowable Costs shall be recorded in a separately maintained Balancing Account. Revenues received by APS through Schedule RES, as well as other relevant revenue (including, but not limited to, forfeited PBI Reservation Deposits and Service Schedule 6 payments), shall be credited to the Balancing Account.

Adjustor Components

Schedule RES shall consist of a monthly kilowatt-hour ("kWh") charge applied equally to all Standard Offer and Direct Access service, with the exception of those kWh served in accordance with Rate Schedules Solar-2 and Solar-3 and Adjustment Schedules GPS-1, GPS-2, and GPS-3. The kilowatt-hour charge is subject to a monthly surcharge limit determined specifically for each of three customer classes: residential customers, non-residential customers, and non-residential customers with demands of 3,000 kW or higher per month for three consecutive months.

[1] The Company's initial Schedule RES was approved by the Commission in Decision No. 70313 (April 28, 2008) and has been revised on an annual basis as described in this Plan of Administration.

aps

RENEWABLE ENERGY STANDARD ADJUSTMENT SCHEDULE PLAN OF ADMINISTRATION

If the Balancing Account has accrued an over or under collected balance in a given period, any such over or under collection shall be included in Schedule RES in the subsequent calendar year.

Determination of the kWh Rate and Surcharge Limits for Schedule RES

Schedule RES shall be revised annually to recover projected Allowable Costs for the upcoming calendar year, and shall be based on programs and budgets contained in the Company's RES Plan and approved by the Commission. The Schedule RES kWh rate and surcharge limits shall be designed using projected billing determinants for the same period. The billing determinants shall include total retail kWh subject to Schedule RES and the number of customers and associated kWh that are billed under each surcharge limit. In addition, any annual change in surcharge limits shall maintain the proportionality between customer classes as established in the Company's initial Schedule RES and contained in Appendix A to the Rules (the Sample Tariff).

Review and Approval Process

Schedule RES shall be filed for the upcoming calendar year as part of the Company's RES Plan, which is filed on July 1st each year as set forth in the Rules. Supporting information for the calculation of the kWh rate and surcharge limits as shown in Exhibit 1 to this Plan of Administration shall be provided. Schedule RES shall be updated to reflect the final approved budget for the upcoming year and an updated projected over or under collection in the Balancing Account through the end of the current year.

Once approved by the Commission, the Schedule RES rate and surcharge limits will be effective each year beginning with billing cycle 1 of the January revenue month and will not be prorated. The following table provides an illustration of the review and approval process.

Illustrative Table of Events for 2013 REST Plan

July 1, 2012	- File 2013 RES Plan including Adjustment Schedule RES charges and surcharge limits - Adjustment Schedule RES Exhibit 1 • 2013 projected allowable costs • 2013 projected billing determinants • 2012 projected Balancing Account
By December 31, 2012	- Commission consideration of Plan - Refresh as needed: • 2013 projected allowable costs • 2012 projected Balancing Account
Jan 1, 2013	- Implement new Adjustment Schedule RES charges beginning with 1st billing cycle in January, without proration

EXHIBIT I Page 3 of 4 - RES Adjustment Schedule Plan of Administration

Arizona Public Service Company
Adjustment Schedule RES Plan of Administration
Exhibit 1
Derivation of Revenue Requirements

Current Year	XXXX	
Effective Year	XXXX	
Revised Charge effective	Jan 1, XXXX	

	Account Balance for the Current Year[1]	Amount	Reference
1	Beginning Balance	$ -	
2	Revenue (projected to year end)	XXXX	
3	Costs (projected to year end)	XXXX	
4	Ending Balance (projected to year end)	XXXX	line 1 + line 2 - line 3
	Revenue Requirements for Effective Year[2]		
5	Costs	XXXX	
6	True-up of Ending Balance from Current Year	XXXX	- line 4
7	Total Revenue Requirements	XXXX	line 5 + line 6

Notes
1. All amounts are projected to the end of the Current Year
2. All amounts are projected for the Effective Year

EXHIBIT I Page 4 of 4 - RES Adjustment Schedule Plan of Administration

Arizona Public Service Company
Adjustment Schedule RES Plan of Administration
Exhibit 1
Derivation of Revenue

Current Year	XXXX	
Effective Year	XXXX	
Revised Charge effective	Jan 1, XXXX	

		Billing Determinant[1]	Charge[2]	Revenue[3]	Reference
	Residential				
1	kWh billed under kWh Charge	XXXX	x.xxxx	XXXX	
2	Monthly Bills billed at Surcharge limit	XXXX	x.xxxx	XXXX	
3	Subtotal			XXXX	line 1 + line 2
	Non-Residential				
4	kWh billed under kWh Charge	XXXX	x.xxxx	XXXX	
5	Monthly Bills billed at Surcharge limit	XXXX	x.xxxx	XXXX	
6	Subtotal			XXXX	line 4 + line 5
	Non-Residential > 3,000 kW				
7	kWh billed under kWh Charge	-	x.xxxx	XXXX	
8	Monthly Bills billed at Surcharge limit	XXXX	x.xxxx	XXXX	
9	Subtotal			XXXX	line 7 + line 8
10	Total Revenue			XXXX	sum lines 3,6,9

Notes
1. Billing Determinants are projected for the Effective Year
2. Proposed charges and surcharge limits effective January 1 of the Effective Year
3. Revenue projected for the Effective Year. Revenue = Billing Determinant * Charge